

EXHIBIT 38

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
NORTHERN DIVISION

- - - - - x
MRP PROPERTIES COMPANY, LLC, :
et al., :
Plaintiffs and :
Counterclaim :
Defendants, :
vs. : Case No.
UNITED STATES OF AMERICA, : 17-cv-11174
Defendant and :
Counterclaimant. :

- - - - - x VOLUME I

VIRTUAL DEPOSITION OF: RANDALL GRIP

DATE: Tuesday, May 19, 2020
TIME: 10:32 a.m.
LOCATION: Aero-Data Corp.
8280 YMCA Plaza Drive
Baton Rouge, Louisiana
REPORTED BY: Denise M. Brunet, RPR
Reporter/Notary

Capital Reporting Company
1250 Eye Street, N.W., Suite 350
Washington, D.C. 20005

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<p>1 A P P E A R A N C E S</p> <p>2</p> <p>3 On behalf of the Plaintiffs:</p> <p>4 WILLIAM C. PETIT, ESQUIRE</p> <p>5 WILLIAM J. JACKSON, ESQUIRE</p> <p>6 JENNIFER BARKS, ESQUIRE</p> <p>7 Kelley Drye & Warren</p> <p>8 515 Post Oak Boulevard</p> <p>9 Suite 900</p> <p>10 Houston, Texas 77027</p> <p>11 (713) 355-5023</p> <p>12 wpetit@kelleydrye.com</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22 (All parties appearing remotely.)</p>	<p>1 C O N T E N T S</p> <p>2 EXAMINATION BY: PAGE:</p> <p>3 Counsel for Defendant 6</p> <p>4</p> <p>5 DEPOSITION EXHIBITS: PAGE:</p> <p>6 1 - Grip report 10</p> <p>7 2 - Excerpt from Manual of Photographic</p> <p>8 Interpretation Second Edition 50</p> <p>9 3 - Annotated photo - 6/26/1938 Alma,</p> <p>10 Michigan 93</p> <p>11 4 - Annotated photo - Circa 1940s Alma,</p> <p>12 Michigan 102</p> <p>13 5 - Side-by-side annotated photos D01-047</p> <p>14 and D01-046 112</p> <p>15 6 - Document Bates stamped MAA_VC0035470</p> <p>16 through 73 113</p> <p>17 7 - Sanborn map D-02 119</p> <p>18 8 - Annotated Sanborn Leonard map 127</p> <p>19 9 - Annotated photo - 1945 Alma, Michigan 151</p> <p>20 10 - Sanborn map for Midwest Refineries 155</p> <p>21</p> <p>22 (Exhibits continued on the next page.)</p>
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<p>1 APPEARANCES (continued):</p> <p>2</p> <p>3 On behalf of the Defendant:</p> <p>4 SYDNEY MENEES, ESQUIRE</p> <p>5 C. SCOTT SPEAR, ESQUIRE</p> <p>6 U.S. Department of Justice</p> <p>7 Environmental Defense Section</p> <p>8 4 Constitution Square</p> <p>9 150 M Street, Northeast</p> <p>10 Room 4.137</p> <p>11 Washington, D.C. 20002</p> <p>12 (202) 353-5885</p> <p>13 sydney.menees@doj.gov</p> <p>14</p> <p>15 ALSO PRESENT: Mark Donatiello</p> <p>16 Aric Gibson</p> <p>17 Shelbie Lynch</p> <p>18 Danny Hambrick</p> <p>19</p> <p>20</p> <p>21</p> <p>22 (All parties appearing remotely.)</p>	<p>1 DEPOSITION EXHIBITS: PAGE:</p> <p>2 11 - Annotated Sanborn map - 5/1950 Hanford,</p> <p>3 California 236</p> <p>4 12 - Annotated photo - 2/7/1946 Memphis,</p> <p>5 Tennessee 246</p> <p>6</p> <p>7 (*Exhibits attached to the transcript.)</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p>

<p style="text-align: right;">Page 6</p> <p>1 PROCEEDINGS</p> <p>2 WHEREUPON,</p> <p>3 RANDALL GRIP,</p> <p>4 called as a witness, and having been sworn by the</p> <p>5 notary public, was examined and testified as</p> <p>6 follows:</p> <p>7 EXAMINATION BY COUNSEL FOR THE DEFENDANT</p> <p>8 BY MS. MENEES:</p> <p>9 Q Good morning, Mr. Grip. My name is</p> <p>10 Sydney Meness and I'm an attorney with the</p> <p>11 Department of Justice. I represent the United</p> <p>12 States in this matter. And are you represented by</p> <p>13 counsel today?</p> <p>14 A Yes.</p> <p>15 Q Who is that?</p> <p>16 A Will Petit.</p> <p>17 Q I'm going to be asking you a series of</p> <p>18 questions and you're under oath to provide full</p> <p>19 and complete answers. If you don't understand</p> <p>20 what I'm asking you, you should let me know so</p> <p>21 that I can rephrase or clarify to help you</p> <p>22 understand a question.</p>	<p style="text-align: right;">Page 8</p> <p>1 us both use consistent colors. So I would ask</p> <p>2 that you try to mark everything in red, and if I</p> <p>3 have to mark something, I will mark it in blue.</p> <p>4 Do you understand?</p> <p>5 A Yes.</p> <p>6 Q And if we need to go through that once we</p> <p>7 actually get to the marking portion, we'll say it</p> <p>8 again.</p> <p>9 How did you prepare for your deposition</p> <p>10 today?</p> <p>11 A I went over my reports, looked at the</p> <p>12 images and looked at some of the stereoscopic</p> <p>13 coverage of the same images.</p> <p>14 Q And when you say you looked at the</p> <p>15 stereoscopic coverage, could you expand on that a</p> <p>16 little bit?</p> <p>17 A Well, my -- my actual report is just all</p> <p>18 the photos that are printed out, so they're</p> <p>19 monoscopic, no 3-D effect to those. But I went</p> <p>20 back to my stereoplotters and reviewed --</p> <p>21 THE REPORTER: I'm sorry. I went back to</p> <p>22 my...</p>
<p style="text-align: right;">Page 7</p> <p>1 Do you understand the nature of the oath</p> <p>2 that you took this morning?</p> <p>3 A Yes.</p> <p>4 Q So you should answer each question to the</p> <p>5 extent that you can, and if you're not sure or</p> <p>6 don't have a complete answer, you should still try</p> <p>7 to answer as best as you can. Do you understand?</p> <p>8 A Yes.</p> <p>9 Q As you can see, we have our court</p> <p>10 reporter, Denise Brunet, and she is taking</p> <p>11 everything down, and it's even more difficult</p> <p>12 remotely than it would be in person, so I'm going</p> <p>13 to try to be mindful to speak slowly and I ask you</p> <p>14 to try to speak slowly and clearly as well. Is</p> <p>15 that okay?</p> <p>16 A Yes, it is.</p> <p>17 Q Have you taken any medication that would</p> <p>18 affect your ability to testify honestly today?</p> <p>19 A No.</p> <p>20 Q Okay. For the marking purposes of</p> <p>21 this -- if I ask you to mark something, since</p> <p>22 we're doing it remotely, I'm going to try to have</p>	<p style="text-align: right;">Page 9</p> <p>1 THE WITNESS: Stereoplotter to review the</p> <p>2 sites, three-dimensionally.</p> <p>3 BY MS. MENEES:</p> <p>4 Q One more thing before we get into more of</p> <p>5 the standard questioning. Let me know if you need</p> <p>6 a break; otherwise, I'll just suggest times for</p> <p>7 breaks.</p> <p>8 So back to preparing for your deposition.</p> <p>9 Did you discuss your deposition today with</p> <p>10 counsel?</p> <p>11 A Yes. The rules of the deposition, I did</p> <p>12 speak with him about that.</p> <p>13 Q Okay. And how long did you prepare for</p> <p>14 your deposition?</p> <p>15 A Probably 8, 12 hours.</p> <p>16 Q And when you reviewed your report again,</p> <p>17 did you notice anything that was missing?</p> <p>18 A No, not as I sit here today.</p> <p>19 Q Did you notice anything that was</p> <p>20 incorrect?</p> <p>21 A No.</p> <p>22 Q Okay. I'm now going to show you what's</p>

<p style="text-align: right;">Page 10</p> <p>1 been marked as Exhibit 1.</p> <p>2 (Deposition Exhibit Number 1 was marked</p> <p>3 for identification.)</p> <p>4 BY MS. MENEES:</p> <p>5 Q It is your report. Do you recognize this</p> <p>6 document?</p> <p>7 A Yes.</p> <p>8 Q Okay. I'll just be referring to it in</p> <p>9 shorthand as your report. And I notice this one</p> <p>10 that we're looking at doesn't have an exhibit</p> <p>11 sticker on. Is that just not showing up for -- is</p> <p>12 there a reason why that's not showing up?</p> <p>13 A Is that question for me?</p> <p>14 Q Sorry. No. It was more of a technical</p> <p>15 question.</p> <p>16 A Okay.</p> <p>17 Q It's okay. We can move forward and</p> <p>18 discuss this at a break. So if we go to page 2,</p> <p>19 it says that -- it says that you were engaged by</p> <p>20 the Valero Companies, quote, to perform a</p> <p>21 historical aerial photography study of 12</p> <p>22 refineries.</p>	<p style="text-align: right;">Page 12</p> <p>1 would you define photo-interpretation?</p> <p>2 A It's reviewing photography --</p> <p>3 THE REPORTER: Mr. Grip, I'm so sorry.</p> <p>4 Could you start the beginning of your answer</p> <p>5 again, please.</p> <p>6 THE WITNESS: It's analyzing aerial</p> <p>7 photography, looking at the features on the scene</p> <p>8 based on keys that are visible, determining the</p> <p>9 meaning of features that are seen in aerial</p> <p>10 photographs.</p> <p>11 Q And how would you define photogrammetry?</p> <p>12 A Well, photogrammetry is basically making</p> <p>13 measurements from photographs. And the images</p> <p>14 that are included in my report are called</p> <p>15 orthophotos, and they were produced with</p> <p>16 photogrammetric efforts on workstations that are</p> <p>17 designed for mapping and photogrammetry.</p> <p>18 So I'm looking at the scenes in 3-D, and</p> <p>19 I produce these monoscopic photographs in a</p> <p>20 coordinate system for display in my report.</p> <p>21 Q Okay. So photogrammetry is more of the</p> <p>22 process, and photo-interpretation is the action;</p>
<p style="text-align: right;">Page 11</p> <p>1 Is that a full and accurate statement of</p> <p>2 your engagement?</p> <p>3 A Yes.</p> <p>4 Q Okay. And then a little bit further</p> <p>5 down, it says you were asked to identify, acquire</p> <p>6 and produce historical aerial photography and</p> <p>7 produce imagery for viewing and analysis for each</p> <p>8 of the refinery sites and for a particular period</p> <p>9 of time covering approximately the 1930s to the</p> <p>10 1950s.</p> <p>11 Who asked you to do that?</p> <p>12 A I believe it was Will Petit with Kelley,</p> <p>13 Drye & Warren.</p> <p>14 Q And were you asked to do anything else?</p> <p>15 A No. It was our standard aerial</p> <p>16 historical study where we identified -- researched</p> <p>17 and identified photographic coverage and, you</p> <p>18 know, convey our results, our observations to</p> <p>19 interested parties.</p> <p>20 Q Okay. And then it also says in your</p> <p>21 report that you expect to testify in</p> <p>22 photo-interpretation and photogrammetry. How</p>	<p style="text-align: right;">Page 13</p> <p>1 is that correct?</p> <p>2 A Yes. Photo-interpretation is an analysis</p> <p>3 of imagery that I've seen. The photogrammetry is</p> <p>4 the process where I've brought all the historical</p> <p>5 imagery into the same coordinate system, and I'm</p> <p>6 able to measure distances on it, measure features,</p> <p>7 the heights of features that I can see, drainage</p> <p>8 pathways and things like that that are important</p> <p>9 for analysis of environmental sites.</p> <p>10 Q If we could go to page 171 of your</p> <p>11 report. Is this the CV -- sorry. Is this CV</p> <p>12 attached to your expert report up to date?</p> <p>13 A Yes. I believe it is.</p> <p>14 Q Do you want to just look at it to make</p> <p>15 sure?</p> <p>16 A I don't see any major changes.</p> <p>17 Q Okay. And could you describe your</p> <p>18 current position for me?</p> <p>19 A I'm vice president at Aero-Data</p> <p>20 Corporation.</p> <p>21 Q What do you do in that role?</p> <p>22 A Well, I have some administrative duties,</p>

<p style="text-align: right;">Page 14</p> <p>1 but I also participate and -- I still do a little 2 bit of scanning of aerial photography. I do a 3 little -- some research of aerial photography, 4 historical research, outside sources and also in 5 my photo laboratory, or in our photo library, I 6 should say. 7 I also do a little bit of camera work 8 where we fly volume calculation sites monthly and, 9 when needed, I operate the camera. I also analyze 10 the stereoscopic imagery for, you know, 11 determining what happened on a site over time. 12 And I produce volume calculation reports that help 13 industry with an inventory of raw materials or 14 space and landfills or mud lakes. 15 Q And when you say -- what is the 16 percentage of your time doing research versus 17 other tasks? 18 A Research, it's a small portion of the 19 tasks that I do. But in this particular project, 20 I was assisted by a person that does more research 21 here in-house. We've done a lot of historical 22 research. So we have a lot of libraries and</p>	<p style="text-align: right;">Page 16</p> <p>1 would take them in a plane or you would take them 2 on the ground? 3 A In the plane. I was a camera operator in 4 the back of the plane, so actually either fired 5 the camera myself or I controlled the camera 6 system so there was adequate photo coverage on 7 these different sites. 8 Q And what sort of work does Aero-Data 9 Corporation do in general? 10 A We're an aerial mapping company. We do 11 just traditional mapping of, like I said before, 12 industry, like landfills, industry that has mud 13 lakes or tank -- like retaining levies around 14 tanks, we can help determine volume of those, and 15 conventional mapping. 16 There's some interest in just photographs 17 of the site for background and engineering-type 18 work. 19 We also do historical studies, which is a 20 specialty where we research and gather up aerial 21 photography from a multitude of sources and bring 22 them into a coordinate system and analyze those</p>
<p style="text-align: right;">Page 15</p> <p>1 contacts around the U.S. for these sites. But I 2 don't do a lot of research on my own. 3 Q And so you have employees who do more of 4 the research for you? 5 A Correct. 6 Q How many employees work at Aero-Data 7 Corporation? 8 A Right now, six. Not all full-time. 9 Q And of those six, how many would be 10 researchers as their primary role? 11 A There's no primary researcher. I mean, 12 that's just one of the duties that we would do. 13 We don't have a full-time researcher. 14 Q Okay. How long have you worked at 15 Aero-Data Corporation? 16 A Oh, you know, really before 1990, but I 17 would say around 1990, the early '90s. I did do 18 some work in summers as a camera operator prior to 19 that, and I did some mapping work as well, but 20 more solid in the '90s as a photo lab specialist. 21 Q And when you say you would -- I guess you 22 would take the photos, does that mean that you</p>	<p style="text-align: right;">Page 17</p> <p>1 for interested parties. 2 Q Do you work for other oil companies as 3 well? 4 A I have worked for other oil companies, 5 yes. 6 Q Did any of your family work at Aero-Data 7 Corporation? 8 A My father is retired. You know, he would 9 come in and assist if necessary, but he's 10 basically retired now. And that's really it. 11 Q What did he do at the company prior to 12 his retirement? 13 A He was -- well, as the president, he was 14 also a pilot, and he also did specialize in these 15 historical studies. So he would review and 16 photo-interpret sites and produce reports, similar 17 to what we're looking at today. 18 Q So you mentioned you started working at 19 Aero-Data Corporation in the '90s or a little 20 before that. Could you walk me through your 21 different roles at the company? 22 A Okay. Well, initially, I was, like I</p>

<p style="text-align: right;">Page 18</p> <p>1 said before, the camera operator. So I sit in the</p> <p>2 back of the plane and I change out the film, take</p> <p>3 photographs of the sites as we fly over at</p> <p>4 particular intervals so we can review them</p> <p>5 stereoscopically in the office.</p> <p>6 I also work in the photo lab processing</p> <p>7 film and making enlargements. Initially, before</p> <p>8 raster imagery was available --</p> <p>9 THE REPORTER: I'm sorry, Mr. Grip.</p> <p>10 Initially, before...</p> <p>11 THE WITNESS: Before raster imagery was</p> <p>12 available -- R-A-S-T-E-R -- or pictures that are</p> <p>13 available on a computer, we did these reports</p> <p>14 photographically. So the actual report would</p> <p>15 contain actual printed photographs in the back</p> <p>16 instead of computer-printed images. So I scaled</p> <p>17 and cropped historical images photographically.</p> <p>18 There was a lot of photo lab work and time doing</p> <p>19 that.</p> <p>20 And then, as I got into college, I took</p> <p>21 photo-interpretation classes, computer mapping</p> <p>22 classes, geographic information systems and remote</p>	<p style="text-align: right;">Page 20</p> <p>1 that you shifted into testimony?</p> <p>2 A Well --</p> <p>3 MR. PETIT: Objection. Assumes facts not</p> <p>4 into evidence.</p> <p>5 THE WITNESS: Well, this listing of</p> <p>6 testimony is only the past five years. This is</p> <p>7 not the entire listing of testimony that I've</p> <p>8 done. I've done testimony, you know, prior to</p> <p>9 2015.</p> <p>10 BY MS. MENEES:</p> <p>11 Q Okay. So there are -- there's testimony</p> <p>12 you've given that's not included in this</p> <p>13 attachment?</p> <p>14 A Yes.</p> <p>15 Q Okay. And when did you start giving</p> <p>16 testimony?</p> <p>17 A 2003.</p> <p>18 Q How many times do you estimate that</p> <p>19 you've been deposed?</p> <p>20 A More than 20.</p> <p>21 Q Okay. Can we just go through these --</p> <p>22 this page of testimony and you can tell me which</p>
<p style="text-align: right;">Page 19</p> <p>1 sensing. I got more into working at Aero-Data</p> <p>2 actually doing photogrammetric mapping of -- I</p> <p>3 guess my biggest -- first project was mapping tree</p> <p>4 stands and property boundaries of forest land and</p> <p>5 mapping the different trees and heights of those</p> <p>6 trees and doing GIS work that way.</p> <p>7 Then I worked as a project manager, so</p> <p>8 that was managing historical studies, performing</p> <p>9 research, acquiring historical coverage and</p> <p>10 actually setting up the imagery in a coordinate</p> <p>11 system and assisting with production of these</p> <p>12 reports.</p> <p>13 And then as I got more and more</p> <p>14 experience interpreting and working with peer</p> <p>15 review groups on photo-interpretation, I started</p> <p>16 doing more of the reports on my own and my own</p> <p>17 testimony.</p> <p>18 Q Moving to the second page of your CV, it</p> <p>19 looks like -- or, sorry, page 173 of the PDF -- it</p> <p>20 looks like you began providing testimony in 2015.</p> <p>21 You worked at Aero-Data Corporation for quite a</p> <p>22 bit of time before that. So what was the reason</p>	<p style="text-align: right;">Page 21</p> <p>1 party you worked for in each one? Oh, I guess</p> <p>2 it's underlined; is that right?</p> <p>3 A Well, it's -- that's the name of the</p> <p>4 case.</p> <p>5 Q Okay. Sorry, it looked like one of</p> <p>6 them -- just one party was underlined, but I'm</p> <p>7 seeing that differently now. Go ahead.</p> <p>8 A Well, on the first one -- you know, some</p> <p>9 of these -- I think that was -- honestly, I don't</p> <p>10 remember which party the first one was. The</p> <p>11 second testimony -- oh, I worked for Frith Farms</p> <p>12 Desoto Parish.</p> <p>13 THE REPORTER: I'm sorry. I worked</p> <p>14 for...</p> <p>15 THE WITNESS: Frith, F-R-I-T-H.</p> <p>16 And then on the 6 of 2019 -- I'm not</p> <p>17 certain which one that is either.</p> <p>18 BY MS. MENEES:</p> <p>19 Q Okay. So were you not as involved on</p> <p>20 these cases or --</p> <p>21 A No. I was involved. I just -- you know,</p> <p>22 I just don't recall, you know. I think it was the</p>

<p style="text-align: right;">Page 22</p> <p>1 Star B Ranch, but -- you know, when I'm looking at 2 these sites, I'm not concerned with who owns it 3 necessarily; it's just what I see in the imagery. 4 Q All right. 5 A So continuing down on the list are 6 Erisson on the 9/23/2015. And then, on 7 12/18/2015, that was Exxon-Mobil Corporation. 8 Well, it could have been another party involved in 9 Exxon-Mobil, but it was adverse to Frank Allain. 10 Then on 12 of 2016, it was Northrop 11 Grumman. And then on the 4/4/2017 it was PPG. 12 Then 5 of 2017, it was Cranbury Brick Yard. And 13 2/27 [sic] it was Olin. Then 7 of 2018, it was -- 14 I believe it was James Blocker. Then 4 of 2019, I 15 believe it was Otay Land Company. And again, 5 of 16 2019, I'm -- I'm just not certain on that one. 17 Q Okay. Have you ever worked for the 18 United States? 19 A I haven't personally testified for the 20 United States, but I've worked on projects for the 21 United States. 22 Q Okay. Could you tell me a little about</p>	<p style="text-align: right;">Page 24</p> <p>1 THE WITNESS: Aerial 2 photo-interpretation. 3 BY MS. MENEES: 4 Q So have you worked anywhere else besides 5 Aero-Data Corporation? 6 A No. I've worked here my whole life, 7 whole working life. 8 Q Do you have any other work experience 9 that is relevant to your expert opinions in this 10 matter? 11 A Just participation in these historical 12 reviews, historical analysis and reports of these 13 different sites around the U.S., and my contacts 14 with other experts that are privy to, you know, 15 activities on these sites over time. And they 16 help understand how these facilities manage their 17 processes and how they handle their disposal of 18 waste. Also, my university experience with 19 photo-interpretation and computer mapping, I rely 20 on that as well. 21 Q Do you have any experience in the oil 22 industry?</p>
<p style="text-align: right;">Page 23</p> <p>1 those projects? 2 A Yeah. Let's see, one was a dirt pit. It 3 was an analysis of, I guess, a borrow pit site 4 here in Louisiana. I was the project manager for 5 that. And then there was a -- let's see. I think 6 there was another gravel mine in New Mexico. It 7 was a three-dimensional modeling and historical 8 analysis of dirt pits. I believe it was in New 9 Mexico. 10 And then I also worked -- what's that? 11 Q I was going to say, do you know what 12 agency was involved with that? 13 A I believe it was the Department of 14 Justice. 15 Q Okay. 16 A As it was with the one prior, the 17 previous dirt pit. 18 And then I also did photo-interpretation 19 for Aleutian Islands for World War II era 20 activities in the Aleutian Islands. 21 THE REPORTER: I'm sorry. What kind of 22 interpretation was that?</p>	<p style="text-align: right;">Page 25</p> <p>1 A Insofar as it's review of these oil field 2 sites and refineries, yes, I've seen many of these 3 around the United States. 4 Q But you've never worked for an oil 5 company, for instance? 6 A Well, not directly for an oil company, 7 but I've interpreted photography or produced maps 8 for the oil companies. 9 Q Understood, sorry. Did you ever complete 10 any course work related to oil identification in 11 aerial photographs? 12 A I don't know that it was specifically 13 that, but I did do course work in aerial 14 photo-interpretation and remote sensing that -- 15 you know, there's -- those two fields, you know, 16 handle the spectral reflectance of subjects seen 17 on the aerial photography and satellite imagery. 18 It's just the tool that we use to review these 19 different things. 20 Q Have you ever physically been on an oil 21 refinery land or -- on a refinery, I should say? 22 A Yes.</p>

<p style="text-align: right;">Page 26</p> <p>1 Q And what were you doing there?</p> <p>2 A Looking at features that are visible on</p> <p>3 aerial imagery and just confirming what I was able</p> <p>4 to see, like the size of pipes or where particular</p> <p>5 berms are, what they look like on the groined, and</p> <p>6 also vegetation, what the basic contrast between</p> <p>7 vegetation and the ground is in that area.</p> <p>8 Q Did you visit any of the refinery sites</p> <p>9 in this case?</p> <p>10 A No. I was concerned that imagery -- that</p> <p>11 was too old to be of much value to visit the site</p> <p>12 today, so I didn't deem it necessary.</p> <p>13 Q Are you familiar with certain structures</p> <p>14 that are on an oil refinery?</p> <p>15 A Yes.</p> <p>16 Q Could you identify -- sorry, strike that.</p> <p>17 Were you able to identify any of those</p> <p>18 structures in the oblique images that you looked</p> <p>19 at for this case?</p> <p>20 A Some, certain.</p> <p>21 Q Going back to your education, what is</p> <p>22 your educational background?</p>	<p style="text-align: right;">Page 28</p> <p>1 So that was all standard physical</p> <p>2 geography work that I did back at LSU. And while</p> <p>3 I was doing that, you know, I was actually having</p> <p>4 real-world experience at Aero-Data Corporation.</p> <p>5 Q Were there any courses that you took that</p> <p>6 were particularly relevant to your expert report</p> <p>7 that you can think of?</p> <p>8 A Well, the photo-interpretation, I mean,</p> <p>9 that's the key to the entire thing. And then also</p> <p>10 GIS mapping. Everything I've done in this report</p> <p>11 was brought back into the GIS for display in this</p> <p>12 report. And then remote sensing, as I said</p> <p>13 before, is basically photo-interpretation. So</p> <p>14 they're all relevant.</p> <p>15 Q But you didn't take any courses specific</p> <p>16 to oil refinery work, for instance?</p> <p>17 A Not specific -- no specific aerial</p> <p>18 photo-interpretation of refineries, no, I didn't.</p> <p>19 There wasn't a course available for that.</p> <p>20 Q Okay. Have you taught photogrammetry or</p> <p>21 photo-interpretation anywhere?</p> <p>22 A Well, I give presentations to -- there's</p>
<p style="text-align: right;">Page 27</p> <p>1 A I'm a geography major. I graduated from</p> <p>2 LSU. And my course work was an emphasis on</p> <p>3 physical geography; that is, the study of land</p> <p>4 forms and usage of equipment to map these land</p> <p>5 forms, equipment and I should say software as</p> <p>6 well. So that's my background.</p> <p>7 I took courses in, as you see here,</p> <p>8 photo-interpretation, geographic information</p> <p>9 systems -- I used GIS to produce my exhibits for</p> <p>10 this report. GPS surveying -- you know, I did</p> <p>11 have to use some survey ground control points to</p> <p>12 set up the images in this report, but they weren't</p> <p>13 GPS. That wasn't necessary for that level of</p> <p>14 real-world accuracy.</p> <p>15 But remote sensing is -- you know,</p> <p>16 photo-interpretation is remote sensing. It's</p> <p>17 looking at a scene remotely, not -- without the</p> <p>18 ability to touch it, but to look at features in</p> <p>19 aerial photography and determine their meaning</p> <p>20 based on what's around it and the tones and</p> <p>21 textures, size, shape and the way that the feature</p> <p>22 is on the land site.</p>	<p style="text-align: right;">Page 29</p> <p>1 a photogrammetry course at LSU that -- they come</p> <p>2 by our office and I show them how it's done in a</p> <p>3 real-world setting. So the engineering course --</p> <p>4 they come through -- I think it's once a year now;</p> <p>5 it used to be twice a year. And also the -- there</p> <p>6 was a photo-interpretation class. I'm not sure</p> <p>7 who teaches that now, or if even it exists now,</p> <p>8 but I used to take the aerial photo-interpretation</p> <p>9 class also through our office to show how it's</p> <p>10 done with more modern software and equipment.</p> <p>11 I've also given presentations to, say,</p> <p>12 real estate -- I guess, real estate groups and</p> <p>13 conventional surveying groups here in the city.</p> <p>14 Q Okay. So the course that you taught was</p> <p>15 offered through Aero-Data Corporation?</p> <p>16 A It's not a course I'm teaching. It's a</p> <p>17 presentation on actual photo-interpretation and</p> <p>18 photogrammetry. I did that for LSU -- I continue</p> <p>19 to do it for LSU engineering, and also in the past</p> <p>20 I did presentations to the aerial</p> <p>21 photo-interpretation class.</p> <p>22 Q Okay. But you didn't list that on your</p>

<p style="text-align: right;">Page 30</p> <p>1 CV anywhere?</p> <p>2 A No.</p> <p>3 Q Have you published anything that's</p> <p>4 relevant to your testimony today?</p> <p>5 A I've got -- just -- the only thing that I</p> <p>6 had was an old article on, you know, using digital</p> <p>7 imagery in a -- in a courtroom environment. It's</p> <p>8 listed on there, on the environmental forensics</p> <p>9 investigations.</p> <p>10 Q Okay.</p> <p>11 A That's basically -- it's a presentation</p> <p>12 of our methods back in 2000.</p> <p>13 Q Okay. So you haven't published anything</p> <p>14 since 2000?</p> <p>15 A No.</p> <p>16 Q Are you a member of any professional</p> <p>17 societies?</p> <p>18 A Yes. They're listed on the screen in</p> <p>19 attachment C.</p> <p>20 Q For GISP --</p> <p>21 THE REPORTER: I'm sorry. Can you repeat</p> <p>22 that?</p>	<p style="text-align: right;">Page 32</p> <p>1 type of work, photogrammetry. It's more</p> <p>2 photogrammetry and satellite imagery and LIDAR,</p> <p>3 but they're the organization over photogrammetry</p> <p>4 in the U.S.</p> <p>5 Q So you would say -- how would you</p> <p>6 characterize them in terms of -- strike that.</p> <p>7 Are they the preeminent</p> <p>8 photo-interpretation organization in the United</p> <p>9 States?</p> <p>10 A I don't know if there is a</p> <p>11 photo-interpretation organization, but they're the</p> <p>12 preeminent photogrammetry organization in the</p> <p>13 United States.</p> <p>14 Q Would you consider ASPRS to be a thought</p> <p>15 leader in the industry?</p> <p>16 A A what leader?</p> <p>17 Q A thought leader.</p> <p>18 A Thought leader? Can you rephrase that</p> <p>19 somehow?</p> <p>20 Q Yeah. I'm sorry. I'm trying to get at</p> <p>21 how they're viewed in the field. So if you have</p> <p>22 anything -- how do -- people in</p>
<p style="text-align: right;">Page 31</p> <p>1 BY MS. MENEES:</p> <p>2 Q GI -- sorry, I'm trying to think of</p> <p>3 acronyms and I can't -- for GISP, what is required</p> <p>4 for membership?</p> <p>5 A It's -- well, GISP is a certification</p> <p>6 from URISA. You produce course work that you've</p> <p>7 taken in your education and your background,</p> <p>8 real-world experience that you had in the GIS</p> <p>9 profession, and then -- you know, as I've been in</p> <p>10 it long time, I've produced base imagery for</p> <p>11 geographic information systems for a variety of</p> <p>12 sources. But just -- it's based on experience and</p> <p>13 education, and then continuing education of the</p> <p>14 field.</p> <p>15 Q Does it have membership dues or</p> <p>16 certification dues?</p> <p>17 A I don't know if there's certification</p> <p>18 dues, but there are membership dues, certainly.</p> <p>19 Q And for ASPRS, what is required for</p> <p>20 membership?</p> <p>21 A I don't know what the requirement is for</p> <p>22 membership, but they're the basic group for this</p>	<p style="text-align: right;">Page 33</p> <p>1 photo-interpretation, how do you colleagues view</p> <p>2 ASPRS?</p> <p>3 A Oh, it's a solid organization. I mean,</p> <p>4 it -- you know, I've been a member for many years.</p> <p>5 It's a solid organization. They view it</p> <p>6 favorably, certainly.</p> <p>7 Q Okay. You already mentioned URISA, but</p> <p>8 could you describe your membership there?</p> <p>9 A Like I said, it's a membership of -- it's</p> <p>10 really a GIS and land mapping-type organization,</p> <p>11 information system. As the technology changes,</p> <p>12 you know, this is a group of people that are</p> <p>13 interested in staying up on technology, and as</p> <p>14 data becomes available for analysis of sites</p> <p>15 around the U.S. and perhaps the world -- there's</p> <p>16 good contacts through that as well.</p> <p>17 Q For SCAUG, what is that?</p> <p>18 A It's a regional organization that handles</p> <p>19 Arc products or ArcGIS or ArcMap. It's the GIS</p> <p>20 that I use for displaying my interpretations and</p> <p>21 my orthophotos of these sites. So that's just</p> <p>22 a -- just more of a regional-type organization.</p>

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<p>1 THE REPORTER: Are you saying orthophoto?</p> <p>2 THE WITNESS: That's it, correct.</p> <p>3 MR. PETIT: And that's one word, Randy,</p> <p>4 right?</p> <p>5 THE WITNESS: Yes, it is.</p> <p>6 BY MS. MENEES:</p> <p>7 Q And then for the sake of completeness,</p> <p>8 Louisiana Urban and Regional Information Systems</p> <p>9 Association, what is required for membership</p> <p>10 there?</p> <p>11 A It's just -- I don't know what the exact</p> <p>12 requirements are, but that's a group that -- it's</p> <p>13 a more local URISA-type organization, and we do</p> <p>14 meet-ups occasionally or continuing education</p> <p>15 events.</p> <p>16 Q Have you attended any seminars recently</p> <p>17 related to photo-interpretation?</p> <p>18 A More GIS seminars, just online seminars</p> <p>19 that I've had, but not photo-interpretation</p> <p>20 recently.</p> <p>21 Q I'd like to go back to the beginning of</p> <p>22 your report, page 2 -- or I guess it would be</p>	<p>1 instructions on what sort of photos to look for?</p> <p>2 A No. Just -- well, I don't know what FTI</p> <p>3 was instructed, but we were just looking for a</p> <p>4 period of time. Anything we could find in that</p> <p>5 time period is what we were trying to do. We</p> <p>6 weren't instructed specifically on what types of</p> <p>7 imagery. That's based on our experience, on what</p> <p>8 would be useful to this analysis.</p> <p>9 Q Okay. And where did you look for the</p> <p>10 photos?</p> <p>11 A Well, there's governmental sources that</p> <p>12 we -- you know, we pretty much looked everywhere</p> <p>13 we knew to look for those dates, for that</p> <p>14 different coverage, with our experience. Nothing</p> <p>15 that we -- there is no source that we did not</p> <p>16 contact that we thought would have coverage.</p> <p>17 Q Did you have any photos provided to you</p> <p>18 by counsel?</p> <p>19 A As I said before, we received some</p> <p>20 monoscopic photos from one of the other</p> <p>21 consultants, but we went out and got our own</p> <p>22 stereoscopic of the same photos.</p>
Page 35	Page 37
<p>1 page 3 of the PDF, sorry. So going back to the</p> <p>2 introduction where it says you were asked to</p> <p>3 identify, acquire and produce historical aerial</p> <p>4 photography, how did you identify these photos</p> <p>5 that you were going to use in your report?</p> <p>6 A Well, initially, there's another party</p> <p>7 that acquired imagery of the site, and that was</p> <p>8 FTI. They had acquired monoscopic coverage. And</p> <p>9 whenever we -- monoscopic meaning just a single</p> <p>10 frame. So we initially saw that they had</p> <p>11 identified on some of these areas and that kind of</p> <p>12 gave us a road map to some of this photographic</p> <p>13 coverage.</p> <p>14 So we went back and acquired stereoscopic</p> <p>15 coverage of whatever was available that they had</p> <p>16 already acquired. Then we also went through our</p> <p>17 own records, you know, did research at national</p> <p>18 archives and looked through other sources, at</p> <p>19 facilities that we've done nearby these different</p> <p>20 areas and performed our own in-house research, and</p> <p>21 then acquired those as well.</p> <p>22 Q Okay. So were you or FTI given</p>	<p>1 Q Okay. Do you recall what site that was</p> <p>2 for?</p> <p>3 A Not specifically.</p> <p>4 (Off the record.)</p> <p>5 BY MS. MENEES:</p> <p>6 Q Did you include every photo that you</p> <p>7 found or were given in your report?</p> <p>8 A As far as I know, yeah, everything we</p> <p>9 could find we included. I mean, there may be</p> <p>10 something out there that looked to be way too</p> <p>11 high, altitude, or something. I can't rule out</p> <p>12 that we just didn't bother acquiring something</p> <p>13 that high. But as I sit here today, I think we</p> <p>14 included everything that we acquired. There was</p> <p>15 no cherry-picking of photography or anything like</p> <p>16 that.</p> <p>17 THE REPORTER: I'm sorry? There was</p> <p>18 no...</p> <p>19 THE WITNESS: There was just no</p> <p>20 cherry-picking, meaning I didn't select one or</p> <p>21 other to include in the report that -- and not</p> <p>22 include one that was of reasonable resolution.</p>

<p style="text-align: right;">Page 38</p> <p>1 BY MS. MENEES:</p> <p>2 Q How did you determine the date of the</p> <p>3 photos that you included?</p> <p>4 MR. PETIT: Objection. Vague.</p> <p>5 THE WITNESS: Can you rephrase that?</p> <p>6 BY MS. MENEES:</p> <p>7 Q Yes. So you provided dates for each</p> <p>8 image, or estimated dates. How did you determine</p> <p>9 those dates?</p> <p>10 A Okay. Well, aerial photography has</p> <p>11 what's called annotation on the -- actually on the</p> <p>12 film. It either would have an annotation on the</p> <p>13 film, or, if it wasn't annotated on the film,</p> <p>14 there would be information from the index --</p> <p>15 THE REPORTER: I'm sorry --</p> <p>16 MR. PETIT: Sydney, it's Will. You know,</p> <p>17 I'm hearing a lot of breaking up and feedback too.</p> <p>18 I mean, I don't know if it's as bad as Denise. I</p> <p>19 mean, is it worth us trying to dial out and dial</p> <p>20 back in?</p> <p>21 MS. MENEES: We could see if that fixes</p> <p>22 something.</p>	<p style="text-align: right;">Page 40</p> <p>1 A Well, there's a few of them in there. It</p> <p>2 may be either a ground photo that might have an</p> <p>3 annotation on the back or -- there's a few where</p> <p>4 there was no date, but it was -- I don't know how</p> <p>5 many it was, I can just think of one in</p> <p>6 particular, but -- it was just dated by looking at</p> <p>7 the photography, identifying features that are</p> <p>8 visible in photographs with known dates, and</p> <p>9 bracketing the date based on what I can see in the</p> <p>10 imagery. That was just maybe a oblique or two in</p> <p>11 the whole thing.</p> <p>12 So I can see features that are consistent</p> <p>13 with a known date and say they aren't in that</p> <p>14 date, but they appear in a later date, so I can</p> <p>15 bracket activities that I see on that photography</p> <p>16 based on and compared to known dates of</p> <p>17 photography, and giving an estimated date of that</p> <p>18 particular photograph.</p> <p>19 Q As we're going through your report and</p> <p>20 looking at individual images, will you be able to</p> <p>21 recall whether that image was given a specific</p> <p>22 date?</p>
<p style="text-align: right;">Page 39</p> <p>1 (Discussion held off the record.)</p> <p>2 MS. MENEES: Denise, what was the last</p> <p>3 thing that you got?</p> <p>4 (The reporter read the record as</p> <p>5 requested.)</p> <p>6 THE WITNESS: There's annotation on the</p> <p>7 actual film that would call out the data in many</p> <p>8 cases. So on the top line of the frame of</p> <p>9 photography, there would be a date, a roll, a</p> <p>10 frame number and the mission number and sometimes</p> <p>11 the scale of the photograph. So that's the source</p> <p>12 of some of the dates.</p> <p>13 And on the rare occasion where there</p> <p>14 isn't a date annotated on the film, or it's a</p> <p>15 digital image, then it -- if it comes from an</p> <p>16 index from the provider of the photography or</p> <p>17 there's some metadata included with that</p> <p>18 photograph or registered image that tells us the</p> <p>19 date of the flight.</p> <p>20 BY MS. MENEES:</p> <p>21 Q And that was true for every photo you</p> <p>22 looked at? There was always date information?</p>	<p style="text-align: right;">Page 41</p> <p>1 A I believe -- yes. If it's a written-out</p> <p>2 date, yes I could tell you that that's the date</p> <p>3 that we have for it. And I believe I included on</p> <p>4 these exhibits if it was a range of dates or an</p> <p>5 estimated date --</p> <p>6 Q Okay.</p> <p>7 A -- say circa, 1940s, you know, would</p> <p>8 indicate that -- I don't have a specific date on</p> <p>9 that photograph, but I'd confirm through the</p> <p>10 visual features on the photographs.</p> <p>11 Q Okay. But if there is a specific date</p> <p>12 given for a photo that was the date that was</p> <p>13 provided in some way, either in the metadata or on</p> <p>14 the photograph itself?</p> <p>15 A Yes. And I think on the maps there may</p> <p>16 be revision dates that was used for the actual</p> <p>17 date on the maps.</p> <p>18 Q Okay. Yeah, I was going to ask you about</p> <p>19 the maps next. So how did you find the maps that</p> <p>20 were used in your report?</p> <p>21 A Some of the maps were acquired from, you</p> <p>22 know, public sources. I believe others were</p>

<p style="text-align: right;">Page 42</p> <p>1 provided by consultants on the case. And some may</p> <p>2 have been in the record or -- as exhibits, may</p> <p>3 have been provided by counsel.</p> <p>4 Q So did you search for any of the maps</p> <p>5 yourself?</p> <p>6 A I don't know if we did a specific</p> <p>7 research or reacquisition of the actual maps that</p> <p>8 were provided to us, no. But there were maps that</p> <p>9 we acquired on our own as well.</p> <p>10 Q So you acquired some of the maps on your</p> <p>11 own and some of them were provided to you in other</p> <p>12 ways?</p> <p>13 A Yeah. That's right.</p> <p>14 Q How did you determine which maps to</p> <p>15 include?</p> <p>16 A If it added to -- if it had value to my</p> <p>17 report, I used the map. I mean, if it showed</p> <p>18 anything of interest, I included it.</p> <p>19 Q Do you recall any maps that you did not</p> <p>20 include?</p> <p>21 A Not as I sit here today.</p> <p>22 Q And how did you determine the dates of</p>	<p style="text-align: right;">Page 44</p> <p>1 Q So you didn't review any weather data for</p> <p>2 the times and locations of the refineries?</p> <p>3 A I did look at some weather data later. I</p> <p>4 think the initial analysis I didn't -- it wasn't</p> <p>5 of interest to me, but there was something in the</p> <p>6 rebuttal report that made me look at some weather</p> <p>7 data.</p> <p>8 Q Okay. So what whether data did you look</p> <p>9 at?</p> <p>10 A It was involving Kansas -- rainfall</p> <p>11 during a period in Kansas.</p> <p>12 Q Do you recall any information you learned</p> <p>13 from looking at that weather data?</p> <p>14 A Yeah. That it wasn't a particularly</p> <p>15 rainy season.</p> <p>16 Q Did you look at any other weather data?</p> <p>17 A As I sit here, no, I don't recall that,</p> <p>18 no.</p> <p>19 Q Okay. So it was just that one Kansas</p> <p>20 time and place?</p> <p>21 A That's what I recall. I mean, there may</p> <p>22 have been, you know, another usage of it. It's</p>
<p style="text-align: right;">Page 43</p> <p>1 the maps?</p> <p>2 A Well, it just depends on the particular</p> <p>3 map. You know, I haven't memorized the dates for</p> <p>4 each map, but it was either the date in the --</p> <p>5 there would be some writing on the map that would</p> <p>6 indicate a date or, say, revisions of that map</p> <p>7 would be dated as well.</p> <p>8 Q Can you tell which -- strike that.</p> <p>9 On the maps that have been revised, can</p> <p>10 you tell what the revisions are versus what is the</p> <p>11 original map?</p> <p>12 A It just depends. Not always, but I</p> <p>13 believe there could be some dates on features that</p> <p>14 are revised. I would either compare it to the</p> <p>15 aerial photograph or other maps, if possible.</p> <p>16 Q Besides the photos and the maps, were</p> <p>17 there other sources that you used to make your</p> <p>18 expert report?</p> <p>19 A That's all I recall today, you know, just</p> <p>20 identified the site areas and interpreted each</p> <p>21 facility and then presented the results, what we</p> <p>22 were able to see over time.</p>	<p style="text-align: right;">Page 45</p> <p>1 been a little while since I finished the report,</p> <p>2 but I don't recall looking at weather data.</p> <p>3 Q So there's -- besides the photos and the</p> <p>4 maps and one piece of weather data, did you</p> <p>5 consider anything else either today or in</p> <p>6 preparation of your report?</p> <p>7 A No, I think that covers it.</p> <p>8 Q Okay.</p> <p>9 A Just my experience with looking at</p> <p>10 refineries -- you know, I went back and did a</p> <p>11 comparison on other sites where I saw vegetation</p> <p>12 floating versus slicks on the surface, but just</p> <p>13 basic aerial review.</p> <p>14 Q Did anyone assist you in preparing your</p> <p>15 expert report?</p> <p>16 A Well, yes. There were -- several people</p> <p>17 assisted me. Let's see. I'll just start -- Rusty</p> <p>18 Gautreaux would be scanning --</p> <p>19 THE REPORTER: I'm sorry. What was the</p> <p>20 name?</p> <p>21 THE WITNESS: Rusty Gautreaux,</p> <p>22 G-A-U-T-R-E-A-U-X. He's our scanning specialist.</p>

<p style="text-align: right;">Page 46</p> <p>1 So anything that would scan would be through</p> <p>2 Rusty.</p> <p>3 Daniel Roberts, he did setups under my</p> <p>4 direction, you know, in a coordinate system of</p> <p>5 these different sites for review. The setup and</p> <p>6 stereo was done by Danny.</p> <p>7 And Laurie Bourgeois -- oh, I should shy</p> <p>8 Danny also processed the orthophotos and I</p> <p>9 reviewed everything that was done. Then Laurie</p> <p>10 Bourgeois assisted me with research and pulling</p> <p>11 together the report itself.</p> <p>12 Q Okay. But who -- sorry. Go ahead. You</p> <p>13 were going to say something?</p> <p>14 A And also Laurie assisted me in</p> <p>15 interpreting the sites -- you know, we'll review</p> <p>16 these sites over time together in stereo and</p> <p>17 produce the exhibits included in the report.</p> <p>18 Q Did you personally look at every photo</p> <p>19 included in your report?</p> <p>20 A Yes.</p> <p>21 Q Have you spoken with the other experts in</p> <p>22 this case?</p>	<p style="text-align: right;">Page 48</p> <p>1 MR. PETIT: Objection. Misstates</p> <p>2 testimony.</p> <p>3 THE WITNESS: They just -- I knew that</p> <p>4 they were working on the project. I don't know to</p> <p>5 what extent their expertise is. But, you know,</p> <p>6 I'm just telling them what I saw in the aerial</p> <p>7 imagery and where it was.</p> <p>8 BY MS. MENEES:</p> <p>9 Q Did they tell you any of their</p> <p>10 interpretations of any of the sites?</p> <p>11 A No, not that I recall.</p> <p>12 Q Did your conversations with them affect</p> <p>13 your interpretation of the images?</p> <p>14 A No, not at all.</p> <p>15 Q Do you recall when these conversations</p> <p>16 occurred?</p> <p>17 A I couldn't tell you the exact time.</p> <p>18 Q Was it before you submitted your expert</p> <p>19 report?</p> <p>20 A It may be, as the dates came in and I was</p> <p>21 able to -- dates meaning I ordered the coverage,</p> <p>22 reviewed it and tell them what I see --</p>
<p style="text-align: right;">Page 47</p> <p>1 A I've had -- been on conference calls</p> <p>2 where I presented my findings, what I was able to</p> <p>3 see in historical imagery, on conference calls,</p> <p>4 certainly.</p> <p>5 Q Do you recall which experts you were</p> <p>6 talking to?</p> <p>7 A One was AJ Gravel. And the other name</p> <p>8 escapes me. There's been -- go ahead.</p> <p>9 Q Was Lerman on the call?</p> <p>10 A Yes. I recognize that name as well.</p> <p>11 Q Okay.</p> <p>12 A So basically, I'll bring up my imagery</p> <p>13 and then describe to them what I was able to see</p> <p>14 on these different sites over time.</p> <p>15 Q And did they tell you anything they had</p> <p>16 found?</p> <p>17 A I don't know that they -- they had really</p> <p>18 any effect on what I was including in my report,</p> <p>19 just that, oh, this makes sense or, oh, that must</p> <p>20 be this. You know, that type of feedback.</p> <p>21 Q Okay. So they did tell you what they</p> <p>22 were working on?</p>	<p style="text-align: right;">Page 49</p> <p>1 THE REPORTER: I'm sorry. Reviewed it</p> <p>2 and...</p> <p>3 THE WITNESS: And explained what I could</p> <p>4 see in the imagery. So I'd say some of it was</p> <p>5 before. I don't know that we discussed anything</p> <p>6 afterwards.</p> <p>7 BY MS. MENEES:</p> <p>8 Q Did you review any of their reports?</p> <p>9 A No, I don't believe so.</p> <p>10 Q Do you subscribe to any publications in</p> <p>11 the field of aerial imagery or photogrammetry?</p> <p>12 A There's an ASPRS journal that comes in.</p> <p>13 There's also maybe some online publications</p> <p>14 regarding geographic information systems, ArcNews.</p> <p>15 Q Have you heard of the Manual of</p> <p>16 Photographic Interpretation by the American</p> <p>17 Society of Photogrammetry and Remote Sensing?</p> <p>18 A Yes.</p> <p>19 Q Would you consider that to be a reliable</p> <p>20 source of information?</p> <p>21 A Yes. It's got good information. You</p> <p>22 have to know where to apply this data, I mean, but</p>

<p style="text-align: right;">Page 50</p> <p>1 it describes, you know, what goes through -- what</p> <p>2 steps a photo interpreter takes when you look at</p> <p>3 these images.</p> <p>4 Q Okay. I'm now going to show you what's</p> <p>5 been marked as Exhibit 2.</p> <p>6 (Deposition Exhibit Number 2 was marked</p> <p>7 for identification.)</p> <p>8 BY MS. MENEES:</p> <p>9 Q And it's the Manual of Photographic</p> <p>10 Interpretation Second Edition. Oh, that's -- it</p> <p>11 should be in the marked exhibits folder already.</p> <p>12 So this is Exhibit 2. It is the Manual</p> <p>13 of Photographic Interpretation Second Edition by</p> <p>14 the American Society of Photogrammetry and Remote</p> <p>15 Sensing. And we may come back to this later, but</p> <p>16 I just wanted to make sure this was what you --</p> <p>17 that we were both talking about the same book.</p> <p>18 A Okay.</p> <p>19 Q So this is the same book that I mentioned</p> <p>20 that's authoritative in the field of</p> <p>21 photogrammetry?</p> <p>22 A It's a good manual of -- produced by the</p>	<p style="text-align: right;">Page 52</p> <p>1 process of how you analyze them?</p> <p>2 A Okay. Well, we acquire the images from</p> <p>3 these different sites. We confirm, you know, if</p> <p>4 the date is annotated or what have you, put it</p> <p>5 into the database, the date and the source of</p> <p>6 each.</p> <p>7 And then for each site -- since these are</p> <p>8 all around the U.S., each site has a different</p> <p>9 coordinate system that's specified by where it is</p> <p>10 in the United States. I believe all these sites</p> <p>11 were set up in the UTM coordinate system.</p> <p>12 THE REPORTER: Were all set up in...</p> <p>13 THE WITNESS: The UTM coordinate system.</p> <p>14 (Discussion held off the record.)</p> <p>15 THE WITNESS: Okay. So basically I'm</p> <p>16 just -- I choose a coordinate system to put this</p> <p>17 imagery into. And what this really does -- you</p> <p>18 know, as we get it from the source, they're just</p> <p>19 scans of photographs. They have no geographic</p> <p>20 placement or anything like that. And as you look</p> <p>21 at these historical photographs, you take them</p> <p>22 from different altitudes, there's different film</p>
<p style="text-align: right;">Page 51</p> <p>1 ASPRS that calls out some standards and describes</p> <p>2 how photographic interpretation is produced.</p> <p>3 MR. PETIT: And I'm going to add an</p> <p>4 objection. Assumes facts not in evidence and</p> <p>5 misstates testimony.</p> <p>6 BY MS. MENEES:</p> <p>7 Q Did you use this book when interpreting</p> <p>8 photos for this report?</p> <p>9 A When you photo-interpret a site, you</p> <p>10 don't need to review a manual as you're going.</p> <p>11 The standards which are included in that are the</p> <p>12 same standards that I'm using when I produce my</p> <p>13 photo-interpretation reports.</p> <p>14 This is just a manual that describes, you</p> <p>15 know, things that are seen, things that -- that</p> <p>16 affect an interpretation, you know. So I'm not --</p> <p>17 I don't refer to a manual every time I go through</p> <p>18 a particular interpretation of a site, but this</p> <p>19 describes circumstances and methods that are used</p> <p>20 in photo-interpretation.</p> <p>21 Q So once you have the photos for the</p> <p>22 various sites, could you walk me through the</p>	<p style="text-align: right;">Page 53</p> <p>1 types, so it's very hard to interpret without the</p> <p>2 system to bring them into.</p> <p>3 That -- I import them into my digital</p> <p>4 photogrammetric workstation and I lock them into a</p> <p>5 coordinate system, one to another. So I'm able to</p> <p>6 see stereoscopically on these photographs -- in</p> <p>7 3-D, that is. And once they're all in the same</p> <p>8 coordinate system, I can switch back and forth</p> <p>9 between photographs, also staying in the same</p> <p>10 coordinate system. So my cursor, I can place it</p> <p>11 on the top of a tank, perhaps, and -- if I'm</p> <p>12 looking at it in 1938, I click the button, and it</p> <p>13 switches to 1941 stereoscopic imagery.</p> <p>14 That's a powerful tool in</p> <p>15 photo-interpretation because I can really see</p> <p>16 changes within the context of what's going on</p> <p>17 around me here. And it keeps everything in the</p> <p>18 same scale as well. So any mapping that I do can</p> <p>19 be moved to another date. It stays in the same</p> <p>20 XYZ position, and I can compare it to where it was</p> <p>21 on a previous date.</p> <p>22 So all of this was very rigorously</p>

<p style="text-align: right;">Page 54</p> <p>1 reviewed in a coordinate system</p> <p>2 three-dimensionally, and I can see changes and I</p> <p>3 can -- if I have trouble identifying a particular</p> <p>4 feature on one date, I can quickly switch back and</p> <p>5 have the benefit of stereoscopic imagery,</p> <p>6 georeference, and I can see changes in where that</p> <p>7 feature was on a previous date to confirm, you</p> <p>8 know, that -- where it was or what it was in</p> <p>9 relation to features around it.</p> <p>10 THE REPORTER: In relation to...</p> <p>11 THE WITNESS: The features around it.</p> <p>12 BY MS. MENEES:</p> <p>13 Q Just as a side note, Randy, when you lean</p> <p>14 forward, it's a little bit harder to hear you.</p> <p>15 You actually sound much better when you're sitting</p> <p>16 back there.</p> <p>17 A Okay. Noted. So we acquire it, we lock</p> <p>18 it into a coordinate system in our stereoplotter,</p> <p>19 and then we produce what's called an orthophoto</p> <p>20 whereas we -- we generate a terrain model of the</p> <p>21 area, if it's a bar or just assume an elevation.</p> <p>22 We produce these orthophotos. And what an</p>	<p style="text-align: right;">Page 56</p> <p>1 resolution date, switch back to another date that</p> <p>2 may be a higher resolution, and it brings in more</p> <p>3 information so you can say, oh, well, I can see</p> <p>4 what that is on this other date and I can tell</p> <p>5 that it's likely not changed, so...</p> <p>6 It helps you understand what's happening</p> <p>7 in low resolution dates when you have everything</p> <p>8 georeferenced stereoscopically like we do here in</p> <p>9 our office.</p> <p>10 Q Okay. So you can fill in missing</p> <p>11 information from other photographs?</p> <p>12 A Yes. The information that's taken from</p> <p>13 all the dates together helps with the</p> <p>14 interpretation of what I'm seeing there. I look</p> <p>15 at a feature, look at what's around it, look at</p> <p>16 the size, the shape, the tone of it, the texture,</p> <p>17 you know, where it is in elevation -- you know, I</p> <p>18 can see elevations on my screen, and the site, you</p> <p>19 know, what's the context of what I'm looking at.</p> <p>20 So it's -- a lot goes into when you're</p> <p>21 doing the photo-interpretation of a feature. And</p> <p>22 quite often it's experience, like, oh, I remember</p>
<p style="text-align: right;">Page 55</p> <p>1 orthophoto is, it's a -- it always has north to</p> <p>2 the top in what I produce, so north is always up,</p> <p>3 and it makes the images, when brought into a GIS,</p> <p>4 the same scale and cropping.</p> <p>5 So whereas the imagery is actually</p> <p>6 multiple altitudes -- you may be looking at</p> <p>7 something for high altitudes or low altitude with</p> <p>8 just a standard stereoscope, I'm actually bringing</p> <p>9 everything in so the reader of my report can</p> <p>10 really tell what's going on relative to change on</p> <p>11 the site, comparing to other dates.</p> <p>12 So -- go ahead.</p> <p>13 Q I was going to say, if a photograph from</p> <p>14 one year to the next is a lower resolution, how</p> <p>15 does that affect your ability to tell what changes</p> <p>16 are present?</p> <p>17 A Well, you know, if it's lower resolution,</p> <p>18 smaller features would be harder to identify,</p> <p>19 certainly. But, you know, you could still see</p> <p>20 features, and -- and often, even if you have a low</p> <p>21 resolution, you can switch -- you place your</p> <p>22 cursor on that low resolution date, or lower</p>	<p style="text-align: right;">Page 57</p> <p>1 I've seen this at a certain facility, you know,</p> <p>2 this is what I expect here. And I'll look and --</p> <p>3 you know, I can see an outfall or what have you.</p> <p>4 THE REPORTER: I can see...</p> <p>5 THE WITNESS: An outfall or what have</p> <p>6 you.</p> <p>7 BY MS. MENEES:</p> <p>8 Q If you don't have elevation data or a</p> <p>9 photograph, can you georeference it? Like, the</p> <p>10 altitude of where you took the photo or where the</p> <p>11 photo was taken.</p> <p>12 A I don't need an absolute altitude to set</p> <p>13 up this imagery in stereo. Just from experience</p> <p>14 on setting up these historical sites over time, we</p> <p>15 can set that up without any camera data at all.</p> <p>16 We have a library of camera calibration reports</p> <p>17 that we refer to. And we can tell by looking at</p> <p>18 these different cameras -- look at an old camera</p> <p>19 library and say, oh, let's use this to set it up</p> <p>20 and -- but just from our own experience, we could</p> <p>21 set up this imagery in a coordinate system with</p> <p>22 very little trouble.</p>

<p style="text-align: right;">Page 58</p> <p>1 I don't need to -- elevation data or the</p> <p>2 altitude of the imagery to set up this</p> <p>3 photography. I just have to have the imagery and</p> <p>4 I measure features and elevations from other</p> <p>5 sources and tell the computer that, hey, this is</p> <p>6 this date, or this is this elevation and an XYZ</p> <p>7 coordinate.</p> <p>8 And it's very easy to tell that it works</p> <p>9 because once it's set up in a coordinate system,</p> <p>10 you go to a feature that you know hasn't changed,</p> <p>11 like a road intersection off of the site area and</p> <p>12 just place your cursor on that road intersection</p> <p>13 and switch between the dates, and you can see that</p> <p>14 road intersection is the same XYZ across multiple</p> <p>15 dates and see you're in good shape with your</p> <p>16 registration.</p> <p>17 THE REPORTER: You're in good shape with</p> <p>18 your...</p> <p>19 THE WITNESS: Registration.</p> <p>20 BY MS. MENEES:</p> <p>21 Q When you were looking at photographs</p> <p>22 between different years, were you looking for</p>	<p style="text-align: right;">Page 60</p> <p>1 imagery.</p> <p>2 BY MS. MENEES:</p> <p>3 Q Taking a step back, you mentioned</p> <p>4 environmentally significant figures. You also --</p> <p>5 MR. PETIT: Features.</p> <p>6 BY MS. MENEES:</p> <p>7 Q Yes. So you mentioned environmentally</p> <p>8 significant features, and you also used that term</p> <p>9 in your report. Can you define that for me?</p> <p>10 A Well, it's features that are visible in</p> <p>11 the imagery that are potential sources of</p> <p>12 contamination or releases into the environment.</p> <p>13 This is a very common thing with industry</p> <p>14 that we see all the time. It's disposal-type</p> <p>15 areas, pits, drainage associated with those pits,</p> <p>16 you know, filling activities.</p> <p>17 I can see -- just to remind you, you're</p> <p>18 looking at a monoscopic image in my report. But</p> <p>19 when I'm making these reports, I'm looking at</p> <p>20 these stereoscopically, so I'm able to see</p> <p>21 elevation. And I can see -- where you may just</p> <p>22 see a disturbance, I may see a pile of material</p>
<p style="text-align: right;">Page 59</p> <p>1 different-- strike that.</p> <p>2 Were you looking for specific features</p> <p>3 when you were analyzing the photographs?</p> <p>4 MR. PETIT: Objection. Ambiguous.</p> <p>5 THE WITNESS: Well, with</p> <p>6 photo-interpretation, you know, of a site there's</p> <p>7 usually a subject. You know, I know what the</p> <p>8 subject is, and so -- these are refineries, and</p> <p>9 I'm looking, you know, for environmentally</p> <p>10 significant features. So I know, from looking at</p> <p>11 other sites and other facilities that are also</p> <p>12 refineries, what are environmentally significant</p> <p>13 features. That includes, you know, pits, lagoons</p> <p>14 or ponds, separators, and the drainage associated</p> <p>15 with those features, and then those same features</p> <p>16 in the context of the way that the refinery is</p> <p>17 constructed. You know, like there's pits that are</p> <p>18 out in the area of the tank farms and then there</p> <p>19 are pits that are closer to the process areas.</p> <p>20 And, you know, all of it comes together.</p> <p>21 It's the -- what I see in the imagery, where it is</p> <p>22 relative to other features that are visible on the</p>	<p style="text-align: right;">Page 61</p> <p>1 there. So those are the things I'm looking for.</p> <p>2 Q And you looked specifically for</p> <p>3 environmentally significant features when you were</p> <p>4 analyzing these aerial photographs?</p> <p>5 A Well, I'm looking at all the features</p> <p>6 that are on the facility to understand, you know,</p> <p>7 the general layout of the land. But, yes, I'm</p> <p>8 looking for environmentally significant features</p> <p>9 too as it pertains to this report.</p> <p>10 Q And would you specifically mark</p> <p>11 environmentally significant features if you saw</p> <p>12 them in your report?</p> <p>13 A Yes. I've got them labeled as what I</p> <p>14 see.</p> <p>15 Q Okay. Besides pits and drainage and</p> <p>16 filling, are there any other features that</p> <p>17 appeared in your report that you would consider</p> <p>18 environmentally significant features?</p> <p>19 A Well, let's see. I think there may be</p> <p>20 some dark tones around loading facilities like,</p> <p>21 say, along a rail spur. I'll mark some, on some</p> <p>22 of the oblique photography, a dark liquid that's</p>

<p style="text-align: right;">Page 62</p> <p>1 coming out of the sides -- or on the tops of the 2 tanks. Pits, trenches, drainage, skimmers. I've 3 also gotten some names of these particular things 4 from maps, and I've tried to include that -- the 5 features that I see in the photography, I try to 6 use the same name of what they -- locally on that 7 map, or that facility's local name usage. 8 There's berms that may have some 9 environmental significance, too. I think that 10 covers it. I wasn't pointing out all the time 11 tanks, you know. At every moment I wasn't -- I 12 didn't necessarily point that out. It's fairly 13 obvious what -- where the tanks are. But there 14 are a few occasions where I showed change across 15 the periods. 16 Q But if you saw a pit, for instance, you 17 would point that out? 18 A Yes. 19 Q Okay. How did you analyze the aerial 20 photographs versus the oblique photographs? 21 A Well, the oblique photograph does not 22 give me the benefit of a stereoscopic effect, so</p>	<p style="text-align: right;">Page 64</p> <p>1 vertical is -- they're both reliable sources of 2 information. 3 Q But you can't actually georeference the 4 oblique photographs as precisely as you can the 5 aerial photographs, right? 6 A Well, that's correct, but I can identify 7 the features that I see in the oblique imagery and 8 relate it to other dates that are georeferenced. 9 So I still know where these features are located 10 based on features that are around them and what I 11 can see in the stereo imagery. 12 Q How did you use the maps for your 13 analysis? 14 A Well, the maps, they also show activities 15 in between photographs. They also show, like I 16 said before, names that that particular facility 17 called these different features, or pits, to be 18 more precise. So they would name what that exact 19 feature is. The map says, you know, blow-down 20 tank and pit. You know, you're not going to see 21 that same feature on the aerial imagery. So I 22 call that, you know, a pit or a blow-down tank,</p>
<p style="text-align: right;">Page 63</p> <p>1 I'm not able to give, you know, an analysis of 2 height. You know, I can give you an estimate 3 based on another feature that's visible in the 4 image. But when I'm looking at the oblique 5 photography, I'm looking at features that I can 6 see also in my -- in my stereoscopic photography. 7 So I'm able to tell what direction the photograph 8 was taken. I can see maybe a lower altitude, 9 higher resolution view of, say, a pit adjacent to 10 a rail spur or, you know, what's going on in those 11 features from up close. And I can relate them to 12 the position that they were on the refineries or 13 the facility and what they looked like just -- 14 closer. 15 Q Do you think the aerial images are more 16 reliable than the oblique images? 17 A Well, I wouldn't say they're more 18 reliable. That's just another source of 19 information that I see in the images. Usually, 20 the vertical photography has a more precise date, 21 but that varies depending on the source. It's 22 just another line of information. Oblique and</p>	<p style="text-align: right;">Page 65</p> <p>1 what have you. 2 Q When you said the maps show activities in 3 between photographs, I think you said -- is that 4 right? 5 A Well, you know, as I'm reviewing these, I 6 compare photographs, maps, everything at the same 7 time. They're all in the same coordinate system. 8 And I'm just telling the reader of the report what 9 I see on those different sources, you know. 10 There's less information on the maps, but 11 there's also good naming and position of features 12 that aren't seen on all the photographs 13 necessarily. 14 Q Could you see activities occurring in the 15 images? 16 A Well, these are snapshots. So, you know, 17 I don't always see -- you know, it's not a film, 18 you know. But I can see the signature of change. 19 I can tell when a pit is there on a previous date, 20 and the next date that same area is filled. I can 21 also see filling activities. They're not 22 necessarily moving these -- when I'm looking in</p>

<p style="text-align: right;">Page 66</p> <p>1 stereo, I'm only looking at photographs that are</p> <p>2 seconds apart, but with the other dates, I have</p> <p>3 the benefit of seeing change and I can -- you</p> <p>4 know, some of them are quite close in date, the</p> <p>5 actual photographs are within months, so by</p> <p>6 flickering back and forth -- that is, switching</p> <p>7 quickly back and forth between photographs -- I</p> <p>8 can see change and -- you know, it's not an active</p> <p>9 movement of a bulldozer or what have you, but I</p> <p>10 can see that there has been change that has</p> <p>11 happened.</p> <p>12 Now, there are circumstances where I</p> <p>13 actually have seen moving bulldozers or a crane</p> <p>14 that's digging, you know, that I can see, but in</p> <p>15 this case, it doesn't really -- I don't really</p> <p>16 recall something specific to this particular</p> <p>17 project.</p> <p>18 Q Are your opinions limited to individual</p> <p>19 photographs; that is to say, you don't have</p> <p>20 overarching opinions over all of the refinery</p> <p>21 sites?</p> <p>22 MR. PETIT: Objection. Vague.</p>	<p style="text-align: right;">Page 68</p> <p>1 man-made features. Now, there may be</p> <p>2 environmentally -- it may be significant in that</p> <p>3 it was a natural feature that was modified by man</p> <p>4 that's now become an environmentally significant</p> <p>5 feature. Say they dammed up a previous flow path</p> <p>6 and used it as a -- like a catch basin or</p> <p>7 something like that. Most of them are man-made.</p> <p>8 You know, it's fairly clear whenever</p> <p>9 they're man-made features. They're very -- it</p> <p>10 will be either straight lines or rounded. But</p> <p>11 there is, in several of these -- these facilities,</p> <p>12 the usage of preexisting features that may have</p> <p>13 been natural but were modified by man that became</p> <p>14 an environmentally significant feature.</p> <p>15 Q When you reviewed your report for today's</p> <p>16 deposition, did you notice any significant</p> <p>17 environmental features that you didn't annotate?</p> <p>18 A I think there was, in an oblique -- there</p> <p>19 was a separator. I don't remember what facility.</p> <p>20 But I could have pointed that out in the oblique,</p> <p>21 an additional separator. As I -- I'm trying to</p> <p>22 think.</p>
<p style="text-align: right;">Page 67</p> <p>1 THE WITNESS: Yeah, I'm not really sure I</p> <p>2 understand. Can you rephrase that somehow?</p> <p>3 BY MS. MENEES:</p> <p>4 Q So you made your report and it had</p> <p>5 specific interpretations for each image, but I</p> <p>6 didn't see any section that included overarching</p> <p>7 opinions for all of the sites in general, so to</p> <p>8 say at all of the refinery sites I observed this.</p> <p>9 So I was just trying to make sure that your report</p> <p>10 and your opinions are limited to individual</p> <p>11 photographs.</p> <p>12 A Okay. I haven't made a conclusion -- you</p> <p>13 know, an overarching opinion, you know. I'm</p> <p>14 observing these features and I'm calling them out</p> <p>15 in my report, and describing. And it's based on</p> <p>16 what I'm seeing in the imagery and my experience</p> <p>17 in looking at other refinery sites, too, besides</p> <p>18 the ones that are in this case.</p> <p>19 Q Going back to significant environmental</p> <p>20 features, are those naturally occurring, man-made</p> <p>21 or both?</p> <p>22 A There may be -- well, most of them are</p>	<p style="text-align: right;">Page 69</p> <p>1 I don't think there was any others. Oh,</p> <p>2 I do remember there's a pit adjacent to a rail</p> <p>3 line that I could have pointed out in a ground</p> <p>4 photograph that I didn't.</p> <p>5 Q Was that the -- what photo was that?</p> <p>6 A It's one of the Alma facilities. I think</p> <p>7 it was Leonard.</p> <p>8 MR. PETIT: And this isn't a memory test,</p> <p>9 so if you need to refer to your report.</p> <p>10 THE WITNESS: Yeah, I will need to look</p> <p>11 at it. I will point it out when I see it as we go</p> <p>12 through these.</p> <p>13 BY MS. MENEES:</p> <p>14 Q Okay. I also wanted to make sure that we</p> <p>15 have a common understanding of certain terms that</p> <p>16 were occurring in your report. So what is -- what</p> <p>17 did you mean when you labeled something a sump?</p> <p>18 A Okay. A sump -- and this is really --</p> <p>19 certain regions use different words for these</p> <p>20 features. And I know, from working at sites in</p> <p>21 California, that they call what we call in</p> <p>22 Louisiana -- we call them pits in Louisiana and</p>

<p style="text-align: right;">Page 70</p> <p>1 they call them sumps in California. So it's the</p> <p>2 same thing. It's something that captures</p> <p>3 something that could be bad or it's designed to</p> <p>4 hold a disposal-type feature.</p> <p>5 Q Okay. So pit and sump are</p> <p>6 interchangeable?</p> <p>7 A Yes.</p> <p>8 Q Do pits always hold something, or sumps?</p> <p>9 A I would say pits -- pits sometimes are</p> <p>10 used for burning as well. And they may be dry,</p> <p>11 you know. They're not always full of the</p> <p>12 disposal-type material, but, you know, when they</p> <p>13 make a pit, generally they use it. They don't</p> <p>14 always close it either when it's not being used,</p> <p>15 but -- they're open and it's clear that --</p> <p>16 usually, they're set aside from the facility in</p> <p>17 disposal-type areas.</p> <p>18 But like I said, when you see a burn pit,</p> <p>19 that doesn't always have material that's visible,</p> <p>20 or liquid.</p> <p>21 Q Does a sump always -- can a sump be dry?</p> <p>22 A You know, there could be times where it's</p>	<p style="text-align: right;">Page 72</p> <p>1 A Trap means it's something that stops many</p> <p>2 a feature. It holds it. I would say that's</p> <p>3 probably similar to a pit-type feature as well.</p> <p>4 Q You mentioned pits hold undesirable</p> <p>5 substances. Is a trap also holding undesirable</p> <p>6 substances?</p> <p>7 A Again, I would probably rely on someone</p> <p>8 with more detail about the processes in that</p> <p>9 facility. So I couldn't tell you. A trap, sump</p> <p>10 or a separator are all things that I would</p> <p>11 identify.</p> <p>12 Q And could those all be used</p> <p>13 interchangeably?</p> <p>14 A Again, it just depends on the facility.</p> <p>15 You know, I'm not -- I'd have to look at it on a</p> <p>16 case-by-case basis.</p> <p>17 Q But sitting here right now, there's no --</p> <p>18 you can't provide a reason for why you would label</p> <p>19 something a sump versus a pit versus a blow-down</p> <p>20 sump versus a trap?</p> <p>21 A Well, I can. The reason I would</p> <p>22 differentiate it is because the name came from a</p>
<p style="text-align: right;">Page 71</p> <p>1 dry, you know, but it still has the material that</p> <p>2 was placed in it originally. It may have liquid</p> <p>3 that's evaporated. You know, it just depends on a</p> <p>4 case-by-case basis that you'd have to show me.</p> <p>5 Q What does blow-down sump mean?</p> <p>6 A It's a sump associated with some type of</p> <p>7 process in the refinery or the facility.</p> <p>8 Q If you label something a blow-down sump,</p> <p>9 can you tell that there is a process occurring?</p> <p>10 A Just that it's there. I would rely on</p> <p>11 someone else that's more involved in the</p> <p>12 activities of that facility to explain what's</p> <p>13 going on there.</p> <p>14 Q Why would you label something a blow-down</p> <p>15 sump versus a sump?</p> <p>16 A If I saw -- if it's labeled blow-down</p> <p>17 sump, the name of that sump was taken from a map.</p> <p>18 That's not something that you would be able to see</p> <p>19 from a photograph. The only thing you could see</p> <p>20 from the photograph was that it was a pit there or</p> <p>21 a sump there.</p> <p>22 Q And what does trap mean?</p>	<p style="text-align: right;">Page 73</p> <p>1 map that specifically pointed that feature out and</p> <p>2 called it that name. So in the interest of being</p> <p>3 consistent with what the map identifies that as, I</p> <p>4 would call it that.</p> <p>5 But without other information, I would</p> <p>6 just call it a -- in California, I'd call it a</p> <p>7 sump, and generally anywhere else I would call it</p> <p>8 a pit, something that potentially has -- is a</p> <p>9 source of contamination on the site.</p> <p>10 Q Besides the map labeling, there's no</p> <p>11 physical difference that you saw when you were</p> <p>12 looking at those features?</p> <p>13 MR. PETIT: Objection. Ambiguous.</p> <p>14 THE WITNESS: Yeah, I can't say that as a</p> <p>15 blanket statement. I'd have to look at each</p> <p>16 feature on a case-by-case basis.</p> <p>17 BY MS. MENEES:</p> <p>18 Q I guess I'm having a little bit of</p> <p>19 confusion as to why something -- why the labeling</p> <p>20 would be inconsistent but for the map. Like, is</p> <p>21 there any other physical distinguishing</p> <p>22 characteristic that would differentiate these</p>

<p style="text-align: right;">Page 74</p> <p>1 features?</p> <p>2 A I could tell you if --</p> <p>3 MR. PETIT: Objection. Speculation.</p> <p>4 THE WITNESS: I have to see each feature</p> <p>5 to -- to say if there's a physical difference that</p> <p>6 you can see between those items, but I can tell</p> <p>7 you --</p> <p>8 THE REPORTER: That you can see</p> <p>9 between...</p> <p>10 THE WITNESS: Those items, or these</p> <p>11 subjects. But when I give it a really specific</p> <p>12 name like that, it's because they named it that on</p> <p>13 the map. I see the same feature in the same</p> <p>14 location, XYZ. You know, I saw it in the</p> <p>15 photograph, it looks like a dark bermed area, and</p> <p>16 then I see the map. They call it a blow-down</p> <p>17 sump, so I'd call that a blow-down sump. I</p> <p>18 believe I put it in parentheses where I got the</p> <p>19 name from. Like, it would say Sanborn or</p> <p>20 something like that. They explain.</p> <p>21 But you know, if I see a feature in a</p> <p>22 refinery that's open and it's holding liquid, you</p>	<p style="text-align: right;">Page 76</p> <p>1 damming it off, and then they just use what used</p> <p>2 to be a natural flow feature -- they damned it off</p> <p>3 and now it becomes either a disposal area or an</p> <p>4 area that captures spills from other disposal</p> <p>5 areas.</p> <p>6 Q Okay. And what do you -- sorry. Strike</p> <p>7 that.</p> <p>8 What does landfilling mean when you use</p> <p>9 it in a photograph?</p> <p>10 A Well, landfilling, I can see an elevated</p> <p>11 surface. They're bringing in material. They've</p> <p>12 got a characteristic signature that you see, and</p> <p>13 pattern, where they bring material from a point on</p> <p>14 the site and they dump it out, and we call them</p> <p>15 truck dump piles, which you can --</p> <p>16 THE REPORTER: We call them...</p> <p>17 THE WITNESS: Truck dump piles. They</p> <p>18 would dump the feature -- dump the material out</p> <p>19 and then push it with a bladed vehicle, like a</p> <p>20 bulldozer, so you will see grading marks. And</p> <p>21 it's a very obvious feature where it's a -- you'll</p> <p>22 see the piles as they're spread out over the</p>
<p style="text-align: right;">Page 75</p> <p>1 know, that's an interest -- that's a feature of</p> <p>2 interest to me.</p> <p>3 BY MS. MENEES:</p> <p>4 Q What about a bermed area versus a pit?</p> <p>5 Are those distinguishable physically?</p> <p>6 A Well, yes. A bermed area -- well,</p> <p>7 there's some overlap there, you know. A bermed</p> <p>8 area, if it's designed to hold a spill from a</p> <p>9 tank, you can see it. You know, you've got a tank</p> <p>10 farm there and there's a volume that's designed to</p> <p>11 handle a rupture of the tank or something like</p> <p>12 that. That is a bermed area, but not considered a</p> <p>13 pit.</p> <p>14 Now, there are pits that definitely have</p> <p>15 berms. It just depends on how it was created.</p> <p>16 They could have dug down and just pushed up the</p> <p>17 sides of the pit so it gives it volume down below</p> <p>18 the ground surface and above of the berm. So</p> <p>19 you've got added volume there when you create a</p> <p>20 pit that has a berm.</p> <p>21 You know, some of the pits are created by</p> <p>22 moving material or bringing material on an area</p>	<p style="text-align: right;">Page 77</p> <p>1 surface. You know, looking at it</p> <p>2 three-dimensionally, I can tell if they brought</p> <p>3 material in. I can see the signatures of it.</p> <p>4 It's quite often -- you know, if it's just a</p> <p>5 dirt-type fill, it will be like an even tone</p> <p>6 material. When it's a landfill, it will look like</p> <p>7 a disposal-type area. There may be debris in</p> <p>8 there, you know.</p> <p>9 But basically the landfill is materials</p> <p>10 brought in and an obvious change to the surface,</p> <p>11 the natural surface.</p> <p>12 Q Is there a distinguishable physical</p> <p>13 difference between a landfill and a disposal area?</p> <p>14 A Again, it depends on the context. You</p> <p>15 know, if I just saw filling -- like material</p> <p>16 that's brought into an area, say, they're creating</p> <p>17 a road, you know, I wouldn't call that a disposal</p> <p>18 area. It's fill for building up a road bed or</p> <p>19 something like that.</p> <p>20 But, you know, looking at these</p> <p>21 industrial sites for years, there's always an area</p> <p>22 set aside in the facility for disposal-type</p>

<p style="text-align: right;">Page 78</p> <p>1 operations, you know, where -- like the back 40</p> <p>2 where they throw out old equipment or they store</p> <p>3 old equipment.</p> <p>4 They also may have pits that are kind of</p> <p>5 set aside for handling undesirable waste or -- you</p> <p>6 know, that captures the material. So it's a very</p> <p>7 common feature that we see.</p> <p>8 Q So if you label something a disposal area</p> <p>9 rather than a landfill, it would have to do with</p> <p>10 the surrounding activity?</p> <p>11 A Well, I'd have to say, too, you know, a</p> <p>12 landfill is not necessarily good material either.</p> <p>13 I mean, if I see filling, I can't tell if it's a</p> <p>14 disposal-type feature necessarily or not. You</p> <p>15 know, again, it just depends on the particular</p> <p>16 area.</p> <p>17 There are areas that come to mind that</p> <p>18 use filling that I think for construction. Before</p> <p>19 they created the facility, they brought in fill to</p> <p>20 kind of build the area up. But there are other</p> <p>21 times where I see fill and it's very clearly a</p> <p>22 disposal operation.</p>	<p style="text-align: right;">Page 80</p> <p>1 AFTERNOON SESSION</p> <p>2 (1:39 p.m.)</p> <p>3 Whereupon,</p> <p>4 RANDALL GRIP,</p> <p>5 was called for continued examination, and having</p> <p>6 been previously duly sworn was examined and</p> <p>7 testified further as follows:</p> <p>8 EXAMINATION BY COUNSEL FOR DEFENDANT</p> <p>9 BY MS. MENEES:</p> <p>10 Q Mr. Grip, did you confer with counsel</p> <p>11 during the break?</p> <p>12 A I just -- I called him and said, how am I</p> <p>13 doing?</p> <p>14 Q Okay. Did he advise you substantively?</p> <p>15 A No. Just that -- let me see. I'm trying</p> <p>16 to think of what he said. Oh. Not to lean</p> <p>17 forward whenever I'm not heard. Apparently, it</p> <p>18 cuts out more. I was just asking how it's coming</p> <p>19 across. So --</p> <p>20 Q You mean how it's coming across --</p> <p>21 A To --</p> <p>22 Q Okay.</p>
<p style="text-align: right;">Page 79</p> <p>1 Q Okay.</p> <p>2 MS. MENEES: Are you guys good for taking</p> <p>3 a break now for lunch?</p> <p>4 MR. PETIT: I am.</p> <p>5 Randy, how are you doing?</p> <p>6 THE WITNESS: I'm fine.</p> <p>7 MR. PETIT: So It's 11:45. I think we've</p> <p>8 been going about hour and 15 minutes since our</p> <p>9 last break. It's up to you, Sydney. It's your</p> <p>10 show.</p> <p>11 MS. MENEES: Okay. I would say let's</p> <p>12 break for lunch. How long do -- should we take an</p> <p>13 hour?</p> <p>14 (Whereupon, at 12:47 p.m., a lunch recess</p> <p>15 was taken.)</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p>	<p style="text-align: right;">Page 81</p> <p>1 THE REPORTER: You're talking over each</p> <p>2 other. All I have is, "How it's coming across."</p> <p>3 BY MS. MENEES:</p> <p>4 Q I was just clarifying. How it's coming</p> <p>5 across technically?</p> <p>6 A And my answer is just the sound of my</p> <p>7 voice, am I projecting enough?</p> <p>8 Q Okay. I'd like to go to Exhibit 1,</p> <p>9 page 38. Let me see. Okay. How did you</p> <p>10 determine the date of this photo?</p> <p>11 A You know, I'd have to look at my records,</p> <p>12 but I believe it was on the back of the</p> <p>13 photograph.</p> <p>14 Q Okay.</p> <p>15 A I'd have to look back at my records. I</p> <p>16 just don't recall as I sit here.</p> <p>17 Q It just has a year and it doesn't have an</p> <p>18 actual date. So does that provide any clue as to</p> <p>19 how certain you are about the date?</p> <p>20 A Well, it's -- obviously, you know, the</p> <p>21 refinery is under construction, but the date is</p> <p>22 whatever I -- wherever I received it. I don't</p>

<p style="text-align: right;">Page 82</p> <p>1 believe that was -- it's too specific for me to do 2 an estimated date. And '36 was my best source for 3 the date, my best number. It wasn't annotated on 4 the film. I think that was just a scan that we 5 had acquired. So either that was the name of the 6 file that we acquired or it was on the back of the 7 scan.</p> <p>8 Q Did you identify any significant 9 environmental features in this photo?</p> <p>10 A Well, I just -- I pointed out tanks. But 11 I haven't identified any pits or anything like 12 that.</p> <p>13 Q So just tanks, nothing else?</p> <p>14 A Right.</p> <p>15 Q Do you identify any activities occurring 16 in this image?</p> <p>17 A Well, I didn't call it out, but I mean, 18 it's obvious that there's a refinery there, at 19 least the tankage and some other buildings 20 associated with a refinery. There is disturbed -- 21 like it's under construction, or it's fairly 22 recently been under construction.</p>	<p style="text-align: right;">Page 84</p> <p>1 this image that was useful to your report?</p> <p>2 A Well, it does show that the refinery is 3 there in 1938 and it appears to be fairly well 4 under construction. It's got some steam that's 5 coming out of one of the pipes to the center right 6 of the screen, so there's some activity going on 7 there.</p> <p>8 Q Okay. Let's move to the next image. How 9 did you determine the date of this photo?</p> <p>10 A This would be -- it's likely it's 11 annotated on the actual film of photography. So 12 what we have -- we're only seeing a portion of the 13 frames of photography that I acquired, focused in 14 on the site area. So if you look at the raw scans 15 that we had received --</p> <p>16 THE REPORTER: I'm sorry. So if you...</p> <p>17 THE WITNESS: If you look at the actual 18 frames of photography were used to produce this 19 orthophoto, there would be an annotation on the 20 film with that date.</p> <p>21 BY MS. MENEES:</p> <p>22 Q This precise date, 6/26/1938?</p>
<p style="text-align: right;">Page 83</p> <p>1 And I can tell you from known dates 2 there's quite a bit of change that happens after 3 this photograph.</p> <p>4 Q Okay. Let's move to the next page. How 5 did you determine the date for this photo?</p> <p>6 A Again, that would either be with the name 7 of the file on the back of the file or some record 8 that we had received that indicated that that's 9 the date of that photograph.</p> <p>10 Q This just has a month and a year, so does 11 that provide any insight into whether -- how 12 certain you are about the date of this photo?</p> <p>13 A No, it doesn't change what I said before.</p> <p>14 Q Okay. Do you identify any of the 15 structures in this photo?</p> <p>16 A No, I haven't. You know, it's just a 17 ground view, or roughly ground view, of what the 18 refinery looked like in 1938. I didn't know if 19 there was some interest another party might have 20 had to that photograph, so I included it in my 21 report.</p> <p>22 Q Okay. So there's nothing specific about</p>	<p style="text-align: right;">Page 85</p> <p>1 A Yes.</p> <p>2 Q Can you tell that, based on the format of 3 the date, that it's a full date rather than just a 4 year or a month and a year?</p> <p>5 A It would have the whole date printed out. 6 It would either be with the slashes, dashes, or 7 sometimes spell out the month, you know, 26, you 8 know, whatever month it is, 1938. It just 9 depends. They change, but whatever we had for the 10 date we used.</p> <p>11 Q Do you identify any significant 12 environmental features in this photo?</p> <p>13 A Yes. I see pits north of the rail spur, 14 a sequence of pits, the dark liquid. And as you 15 go below the rail line, you get two pits that are 16 visible with disturbance around those pits. And 17 then to the left of the pits, there's an area of 18 debris that could be a disposal area. And then I 19 show a low wet area. It could be a possible 20 significant feature.</p> <p>21 Q You mentioned dark liquid. I don't see 22 that noted on the photograph. So could you mark</p>

<p style="text-align: right;">Page 86</p> <p>1 where that is in red so that we know that it's</p> <p>2 your marking?</p> <p>3 A Okay. Let's see. Okay. Right there.</p> <p>4 Q You can clear the drawing if you didn't</p> <p>5 intend to mark there.</p> <p>6 A Yeah. Boy, there's a big delay.</p> <p>7 MR. PETIT: So, Randy, it may be</p> <p>8 helpful -- there's one of those marks that you can</p> <p>9 put an arrow on.</p> <p>10 THE WITNESS: Well -- oh, I see. I'll</p> <p>11 figure it out. This is the learning time. Okay.</p> <p>12 Here, here. Okay.</p> <p>13 BY MS. MENEES:</p> <p>14 Q Okay. So that is -- those red arrows</p> <p>15 indicate dark liquid?</p> <p>16 A Well, it's a dark surface of the pit.</p> <p>17 Q Okay. Do you know what that liquid is?</p> <p>18 A Well, I could tell you it's dark. It's</p> <p>19 in a disposal-type feature. It's at a refinery.</p> <p>20 So I think it could be oil. It's likely some type</p> <p>21 of oil waste product.</p> <p>22 Q How did you come to identify the pits as</p>	<p style="text-align: right;">Page 88</p> <p>1 constructed out of?</p> <p>2 A You know, I really can't tell exactly,</p> <p>3 you know, but it looks to be just classic dug down</p> <p>4 into the surface to create some volume, you know,</p> <p>5 the two to the south of the railroad. They don't</p> <p>6 look like they've got high berms, but that's by</p> <p>7 memory. I'd have to refer to the photograph.</p> <p>8 Stuff to the north, it does appear to be</p> <p>9 bermed and it has volume above the surface, you</p> <p>10 know. I would say it's likely from just earthen</p> <p>11 berms, you know. I'm not a hundred percent on</p> <p>12 that.</p> <p>13 Q Can you tell whether the pits are lined</p> <p>14 with anything?</p> <p>15 A No. I can't see the surface. Unless</p> <p>16 there was a very distinctive liner type, I</p> <p>17 wouldn't be able to tell. It's covered by</p> <p>18 material.</p> <p>19 Q What can you tell me about the debris in</p> <p>20 this photo?</p> <p>21 A Just that it's a classical signature of</p> <p>22 debris. It's not an even pattern of material. I</p>
<p style="text-align: right;">Page 87</p> <p>1 pits?</p> <p>2 A Well, I mean, I can tell -- I've seen</p> <p>3 this in other facilities, including refineries. I</p> <p>4 mean, it's a very classic pit.</p> <p>5 My arrows are messed up. I don't know if</p> <p>6 you all see it like that. Okay.</p> <p>7 It's in an area that's -- looks like they</p> <p>8 would use for a disposal-type activity. It's kind</p> <p>9 of away from process. It's got access roads</p> <p>10 around it. And the one to the north of the</p> <p>11 railroad, you know, it's really set off away from</p> <p>12 the facility. Clearly, bermed area is holding</p> <p>13 liquid.</p> <p>14 Q And you can tell there's liquid in the</p> <p>15 pits?</p> <p>16 A You know, I know they would hold liquid.</p> <p>17 As I sit here, I don't know if I'm seeing a</p> <p>18 shimmering surface that indicates sun glint from a</p> <p>19 wet surface or not, but they're dark, they're</p> <p>20 pits, you know. That would -- it would certainly</p> <p>21 hold the liquid the way it's constructed.</p> <p>22 Q Can you tell what the pits are</p>	<p style="text-align: right;">Page 89</p> <p>1 can't -- the resolution of the photograph doesn't</p> <p>2 allow me to really tell much more than it's</p> <p>3 different size material. Just looks like a little</p> <p>4 area of scrap or debris.</p> <p>5 There may be -- like I said, some of</p> <p>6 these features, I point them out and someone else</p> <p>7 may have other information that's involved in the</p> <p>8 litigation which can shed more light on to that</p> <p>9 particular item.</p> <p>10 Q And what do you mean by the phrase "low</p> <p>11 wet area"?</p> <p>12 A Well, it's -- it's low in that it's</p> <p>13 topographically low, so it could be an area that</p> <p>14 would collect either precipitation or any kind of</p> <p>15 runoff or spills in that area. And it's dark on</p> <p>16 that particular day.</p> <p>17 I didn't notice much in the way of</p> <p>18 darkness anywhere around the site area indicating</p> <p>19 that it was close after a rainfall event, but I</p> <p>20 just wanted to point out that that's a potential</p> <p>21 area to look at for potential contamination.</p> <p>22 Q So did you come to identify it as wet</p>

<p style="text-align: right;">Page 90</p> <p>1 based on the tone?</p> <p>2 A Yes. It's based on the tone and --</p> <p>3 compared to the vegetation surrounding it and the</p> <p>4 fact that it's a lower topographic area that would</p> <p>5 collect moisture, and I believe comparing it to</p> <p>6 other dates. There are others dates I believe</p> <p>7 that it was not dark in tone, indicating that it</p> <p>8 was dry on those other dates.</p> <p>9 Q Did you identify any drainage systems at</p> <p>10 this refinery?</p> <p>11 A I didn't map them particularly in this</p> <p>12 refinery. I don't recall that I saw an extensive</p> <p>13 ditch network or anything like that. Obviously, I</p> <p>14 see bermed areas and things like that. So -- I</p> <p>15 didn't think the drainage was significant on this</p> <p>16 so I didn't map it.</p> <p>17 Q And then can you tell where the property</p> <p>18 line is in this image?</p> <p>19 A I could see usage lines, but I couldn't</p> <p>20 tell you the precise ownership lines. I can just</p> <p>21 see activities that appear to be associated with</p> <p>22 the refinery.</p>	<p style="text-align: right;">Page 92</p> <p>1 believe, right now. Is that right, Danny?</p> <p>2 MR. HAMBRICK: Yeah, that's correct.</p> <p>3 MS. MENEES: Okay. So maybe all of the</p> <p>4 Leonard exhibits could be 3A, B, C, D, et cetera.</p> <p>5 MR. HAMBRICK: Sure.</p> <p>6 MR. PETIT: That makes sense to me.</p> <p>7 Thanks. Sorry for interjecting.</p> <p>8 MS. MENEES: Scott, do you have anything</p> <p>9 to say about that? Okay. Well, let's just keep</p> <p>10 them numbered, actually. Is that -- is that going</p> <p>11 to be a problem?</p> <p>12 MR. PETIT: I just think we're going to</p> <p>13 have a ton of them. So it would, I think, be</p> <p>14 easier to track if all the Alma Leonard ones were</p> <p>15 one exhibit as opposed to keep bringing up new</p> <p>16 exhibits each time.</p> <p>17 MS. MENEES: Yeah. Okay. Let's -- I'm</p> <p>18 just trying to -- I don't foresee any issue</p> <p>19 with -- I know there are going to be a lot of</p> <p>20 exhibits, but I think it might just keep things</p> <p>21 cleaner, rather than numbering, lettering them.</p> <p>22 Because we don't know -- I don't know how many</p>
<p style="text-align: right;">Page 91</p> <p>1 Q I'd like to upload this -- your markings</p> <p>2 as a new exhibit. So --</p> <p>3 MR. HAMBRICK: Sydney, could I interject?</p> <p>4 Would it make sense -- I'm just thinking in terms</p> <p>5 of using these exhibits later on, because we're</p> <p>6 doing a consecutive number system. Do you want to</p> <p>7 do -- if you're going to annotate other Alma</p> <p>8 Leonard maps, do you want to call the annotated</p> <p>9 versions of them 1A or something like that?</p> <p>10 And -- just so that we don't have a bunch of them?</p> <p>11 MS. MENEES: We were talking about that,</p> <p>12 and I don't think that will work because Exhibit 1</p> <p>13 is Mr. Grip's report, and it's all the refineries.</p> <p>14 So, you know, if we marked up images for all of</p> <p>15 the refineries, they would be Exhibit, you know,</p> <p>16 1A through Z, ZZZ or whatever.</p> <p>17 MR. PETIT: Yeah, that's what I</p> <p>18 suggesting, maybe lumping all the Alma Leonards</p> <p>19 together as A and then the next refinery as B.</p> <p>20 But --</p> <p>21 MS. MENEES: Okay. Well, I could see</p> <p>22 that. Let's -- we're on Exhibit Number 3, I</p>	<p style="text-align: right;">Page 93</p> <p>1 letters right now I'm going to be using.</p> <p>2 MR. PETIT: So you want this to be</p> <p>3 Exhibit 3?</p> <p>4 MS. MENEES: Yes.</p> <p>5 (Deposition Exhibit Number 3 was marked</p> <p>6 for identification.)</p> <p>7 MR. HAMBRICK: It's available on Exhibit</p> <p>8 Share now.</p> <p>9 MS. MENEES: As Exhibit 3?</p> <p>10 MR. HAMBRICK: Correct.</p> <p>11 MS. MENEES: Okay. Can you show it to</p> <p>12 Mr. Grip to confirm that it's his markings? It</p> <p>13 has a lot more markings on it than the other one.</p> <p>14 MR. PETIT: And it doesn't have an</p> <p>15 exhibit sticker.</p> <p>16 THE WITNESS: The one that I'm looking at</p> <p>17 now -- oh, wait. That's back to my annotation</p> <p>18 view, right? Because that one looks correct.</p> <p>19 BY MS. MENEES:</p> <p>20 Q Yeah. This one --</p> <p>21 MR. PETIT: Now it does.</p> <p>22 BY MS. MENEES:</p>

<p style="text-align: right;">Page 94</p> <p>1 Q Where did all of those other arrows come 2 from?</p> <p>3 A I don't know. It's a big learning 4 experience.</p> <p>5 MR. PETIT: So I just brought up 6 Exhibit 3 on my Exhibit Share, and it's correct 7 except that it doesn't have an exhibit sticker.</p> <p>8 MR. HAMBRICK: It looks like I have to 9 change the formats before it will actually add 10 stickers in Exhibit Share, so I'm going to put it 11 back up there real quick. Hold on a second.</p> <p>12 (Discussion held off the record.)</p> <p>13 BY MS. MENEES:</p> <p>14 Q Mr. Grip, this has been marked as 15 Exhibit 3. Does this accurately reflect your 16 annotations on this 1938 aerial of the Leonard 17 refinery?</p> <p>18 A Yes. It's got annotations from our 19 report as well as some red arrows pointing to the 20 disposal-type features.</p> <p>21 Q And the red arrows were to indicate what 22 I heard you call dark liquid?</p>	<p style="text-align: right;">Page 96</p> <p>1 the photograph or the name of the file. You know, 2 as I sit here, I don't recall exactly how I got 3 the date.</p> <p>4 Q Do you -- can you identify any of the 5 features in this photo? Or -- sorry. Can you 6 identify any of the structures in this photo?</p> <p>7 A Well, I can tell you what it is, that 8 it's a building or a tank or a -- some kind of 9 stack. But --</p> <p>10 Q Like anything that you can name, go 11 ahead.</p> <p>12 A I'm just -- I'm not naming the feature. 13 I could just tell you I see tanks, vertical tanks. 14 I see stacks and buildings, parking lots, you 15 know.</p> <p>16 Q Did you note any significant 17 environmental features in this photo?</p> <p>18 A I didn't mark -- I didn't see any pits or 19 anything like that in this photograph. It's 20 mainly -- as I said before, someone else might 21 have some interest in what this photograph shows. 22 So I included it in our report.</p>
<p style="text-align: right;">Page 95</p> <p>1 A Well, I should say a dark surface of the 2 pit.</p> <p>3 Q Okay. What activities do you identify in 4 this image?</p> <p>5 A Activities? Well, I can -- I see the 6 refinery, a process area. I see the tanks, tank 7 farms and berms, and parking lots. I didn't mark 8 these. I mean, these are obvious features that 9 are seen. But, I mean, it's a refinery with pits 10 and tanks.</p> <p>11 Q I guess when I say activities, I'm 12 referring to specific operations. Do you see 13 anything that would indicate any particular 14 refinery activity occurring?</p> <p>15 A Just that it exists, and I've seen from 16 other imagery that there's steam that comes out of 17 an area on the process area and there's pits and 18 tanks that exist. I'm not specifying what type of 19 process it is.</p> <p>20 Q Okay. Let's move to the next image. How 21 did you determine the date of this photo?</p> <p>22 A It's the same. Just from either back of</p>	<p style="text-align: right;">Page 97</p> <p>1 Q Let's move to the next image. Can you 2 identify any of the structures in this photo?</p> <p>3 A No, I can just tell you what they look 4 like. I'm not naming structures. That wasn't 5 germane to my analysis or the process area. But I 6 can tell you I see what appears to be steam on the 7 far right side of the photograph.</p> <p>8 Q And why did you include this image?</p> <p>9 A Again, just in case someone had some 10 interest in what these photographs show, you know. 11 Interest to someone else.</p> <p>12 Q So there are no significant environmental 13 features in this photo?</p> <p>14 A Well, you know, this shows that the 15 refinery is there and it's in operation to some 16 extent, but that's all I can really say on this 17 particular photograph.</p> <p>18 Q Let's move to the next photo. How did 19 you -- oh, sorry. This is -- okay. Never mind. 20 Do you recognize any of the structures in this 21 photo?</p> <p>22 A I see them as vertical tanks and some</p>

<p style="text-align: right;">Page 98</p> <p>1 equipment and fences, you know, but no particular 2 names. I made no attempt to name any of these 3 things. 4 Q Okay. And why did you include this 5 image? 6 A I included it in case someone else had 7 some interest that was involved in the litigation. 8 Q Are there any significant environmental 9 features in this photo? 10 A Just -- I see tankage and that -- the 11 fact that the facility is there. That's it. 12 Q Let's move to the next image. Why did 13 you include this photo? 14 A As I said before, in case someone sees 15 something on that that's involved in the 16 litigation and it's of interest to them, I 17 included it. 18 Q Did you note any significant 19 environmental features in this photo? 20 A Again, just the fact that it's there. 21 It's in operation. I see a tanker truck in front, 22 in the foreground.</p>	<p style="text-align: right;">Page 100</p> <p>1 left corner. Were there any other features that 2 helped you date this photo? 3 A Yeah. I'm not going to remember every 4 feature that I looked at, but I can tell you 5 there's a -- on the right side of it there are two 6 tanks that are shown as first visible. If you 7 look at the 1938 date, those tanks are not on that 8 date, the earlier vertical photograph. So 9 obviously, that's -- this is done after the 1938 10 photograph. 11 Q And just for clarity purposes, could you 12 circle the five tanks that you were referring to 13 that helped you date this photograph? 14 A Okay. Let me try again. 15 And there may be more, but that's all 16 that I recall as I sit here. 17 Q And just to be clear, there was no date 18 provided for this photograph? 19 A I don't believe there was a date, no. 20 Q What significant environmental features 21 did you identify in this photo? 22 A Well, really it's -- you have to combine</p>
<p style="text-align: right;">Page 99</p> <p>1 Q Can you identify any of the structures in 2 the photo? 3 A I can just identify them as structures, 4 the way they're shaped and -- they're buildings, 5 tanks and stacks. 6 Q Let's go to the next photo. How did you 7 determine the date of this photo? 8 A This is one -- as I described earlier, 9 it's undated, but I was able to date it by the 10 known photographs that I had. So I would look at 11 known photograph and look at the structures on 12 that photograph and then compare what I see in 13 this image to what I saw in the known date. And I 14 could bracket it. You know, say -- an obvious 15 feature is tanks in the lower left corner of the 16 facility. I can clearly see a change in that 17 area. Before, they're not there. After, it's 18 been redeveloped or something like that. 19 So I can see features in the photograph 20 and how it logically compares to known dates, I 21 give an estimate on that date. 22 Q So you mentioned the tanks in the lower</p>	<p style="text-align: right;">Page 101</p> <p>1 it with the previous vertical photograph, but 2 we've got the closing of one of the pits and 3 redevelopment of the area. In the 1940s this -- 4 well, you can't see what I'm indicating, but 5 this -- the circle -- not the circle farthest to 6 the right, but the second one, that's a new tank 7 that's been redeveloped over the general area of 8 the pit that was identified in the 1938 9 photography, vertical. 10 Q Can you -- you were comparing to the 1938 11 aerial. 12 A Okay. 13 Q Is that what you were talking about? You 14 were saying this -- would it be helpful to have 15 the 1938 aerial up to do your comparison right 16 now? 17 A Yes. I can point to those features as 18 they change from '38 to this date. 19 THE REPORTER: I'm sorry. As they change 20 from... 21 THE WITNESS: 1938 to this photograph. 22 MS. MENEES: Danny, could you pull up the</p>

<p style="text-align: right;">Page 102</p> <p>1 1938 aerial and compare it to this one?</p> <p>2 MR. HAMBRICK: Do you want to go ahead</p> <p>3 and mark this as an exhibit first and keep the</p> <p>4 annotations? Or should I clear --</p> <p>5 MS. MENEES: Yes. Let's mark it as</p> <p>6 Exhibit 4, and have you confirm -- Mr. Grip</p> <p>7 confirm that it is his annotations.</p> <p>8 (Deposition Exhibit Number 4 was marked</p> <p>9 for identification.)</p> <p>10 BY MS. MENEES:</p> <p>11 Q So this has been marked as Exhibit 4.</p> <p>12 Does this accurately reflect the annotations that</p> <p>13 you made on this photograph?</p> <p>14 A Yes.</p> <p>15 MR. HAMBRICK: So what's the side-by-side</p> <p>16 for this?</p> <p>17 MS. MENEES: The 1938 image is page 40 of</p> <p>18 the report, Exhibit 1.</p> <p>19 BY MS. MENEES:</p> <p>20 Q You were saying, Mr. Grip, that you could</p> <p>21 identify -- you were identifying the significant</p> <p>22 environmental features, I believe, when we were</p>	<p style="text-align: right;">Page 104</p> <p>1 side-by-side.</p> <p>2 Q Right.</p> <p>3 A What I was showing is those tanks first</p> <p>4 visible that were circled on the 1940 photograph</p> <p>5 are not visible in the 1938 vertical photograph.</p> <p>6 Q Did you notice any change between the low</p> <p>7 wet area in these two photos?</p> <p>8 A It's difficult for me to see that there</p> <p>9 was a change, but the area remains dark.</p> <p>10 Q Can you tell any change between the pit</p> <p>11 trap on -- between the two photos?</p> <p>12 A No. The -- the look angle is too low to</p> <p>13 see a lot of change there. I can just see that</p> <p>14 the area is still active and there's a darkness to</p> <p>15 it. That's consistent with what we saw in 1938.</p> <p>16 Q And can you see any on-site landfills in</p> <p>17 this image -- I mean, in either image?</p> <p>18 A I didn't identify that. I don't</p> <p>19 believe -- I don't see landfilling other than</p> <p>20 possibly for development of those -- that new tank</p> <p>21 over the pit and that it would have to be closed</p> <p>22 somehow to put that tank over it.</p>
<p style="text-align: right;">Page 103</p> <p>1 talking about the 1938 photograph in comparison to</p> <p>2 the circa 1940s photograph. So what in the 1940s</p> <p>3 photograph is a new significant environmental</p> <p>4 feature?</p> <p>5 A Well, it's -- okay. It's new in that</p> <p>6 it's the same feature that was visible, one of</p> <p>7 them is. It's hard for me to see this now. But</p> <p>8 there's a change between those two dates. So in</p> <p>9 1930 [sic], there's a pit northwest of the pit</p> <p>10 trap Sanborn -- on Sanborn that on this circa</p> <p>11 1940s oblique photograph shows a tank in that</p> <p>12 area. So the pit has been closed or covered and</p> <p>13 redeveloped as a tank, tankage.</p> <p>14 Q So that's the only change on the</p> <p>15 significant environmental features that you</p> <p>16 noticed between these two photos?</p> <p>17 A Well, yeah. I still see the low wet area</p> <p>18 there. And then I still see the pit or named trap</p> <p>19 from the Sanborn.</p> <p>20 We had started off looking at these to</p> <p>21 show how I was dating the oblique photo by</p> <p>22 circling those tanks. That's the purpose of the</p>	<p style="text-align: right;">Page 105</p> <p>1 Q But you can't see any evidence of</p> <p>2 landfilling?</p> <p>3 A Just that the tank exists.</p> <p>4 Q Do you identify any refinery activities</p> <p>5 occurring in the 1940s -- circa 1940s image?</p> <p>6 A Well, I see the refinery is there. I see</p> <p>7 that the tanks are there. I see that they made</p> <p>8 additional tanks, or they constructed them. Just</p> <p>9 that It exists, and, you know, it's in operation.</p> <p>10 Q What happened or -- sorry. Do you see</p> <p>11 any debris in the 1940s image?</p> <p>12 A I did not call that out, so I haven't</p> <p>13 seen any.</p> <p>14 Q What about any dumps? Do you see dumps</p> <p>15 in the 1940s image?</p> <p>16 A I do not see dumps. I haven't specified</p> <p>17 that, so I didn't see it.</p> <p>18 Q Are there any other significant</p> <p>19 environmental features that you see in this photo?</p> <p>20 A I think we covered them all.</p> <p>21 Q Okay. Let's move to the next image in</p> <p>22 your report which is --</p>

<p style="text-align: right;">Page 106</p> <p>1 MR. PETIT: Sydney, can I interject? I'm</p> <p>2 not seeing Exhibit 4. Oh, now I am. And now it's</p> <p>3 a PDF. Okay.</p> <p>4 BY MS. MENEES:</p> <p>5 Q Okay. Are we good on Exhibit 4?</p> <p>6 A Yes, that's my annotations.</p> <p>7 Q Okay. For this September 8th, 1941</p> <p>8 image, how did you determine the date of this</p> <p>9 photo?</p> <p>10 A It was from the name or the file --</p> <p>11 THE REPORTER: I'm sorry. It was from</p> <p>12 the name...</p> <p>13 THE WITNESS: The name of the file or it</p> <p>14 was annotated on the back of the photograph and</p> <p>15 scanned as well. It just -- I'd have to check my</p> <p>16 records. But it's a specific -- it wasn't a</p> <p>17 bracketed estimate. So -- I got that date from</p> <p>18 one of those sources, either the name of the file</p> <p>19 or from an annotated image.</p> <p>20 BY MS. MENEES:</p> <p>21 Q And why did you include this image?</p> <p>22 A It shows the refinery, and there might be</p>	<p style="text-align: right;">Page 108</p> <p>1 photograph was taken.</p> <p>2 THE REPORTER: Bracket the...</p> <p>3 THE WITNESS: Time frame that this</p> <p>4 photograph was taken.</p> <p>5 BY MS. MENEES:</p> <p>6 Q The only 1941 photograph in your report</p> <p>7 is from -- is the previous image, ground photo of</p> <p>8 the refinery, the 9/8/1941 image. So you used</p> <p>9 that photo bracket the time?</p> <p>10 A Yes.</p> <p>11 Q Okay.</p> <p>12 MS. MENEES: Danny, can you pull up the</p> <p>13 previous page of the report and this one? Can you</p> <p>14 do a side -- yes.</p> <p>15 BY MS. MENEES:</p> <p>16 Q So what in the 1941 image did you use to</p> <p>17 bracket the time?</p> <p>18 A I could tell you it's the tanks to the</p> <p>19 right side of the image, those vertical tanks that</p> <p>20 are elevated. If you look at the photograph on</p> <p>21 the left side, they're not there anymore.</p> <p>22 Q Can you circle where they would be in the</p>
<p style="text-align: right;">Page 107</p> <p>1 someone else that has some interest in what's seen</p> <p>2 in the photograph.</p> <p>3 Q Did you note any significant</p> <p>4 environmental features in this photo?</p> <p>5 A Just that the refinery exists. It's got</p> <p>6 a tanker truck in the foreground again.</p> <p>7 Q Let's move to the next image. This is</p> <p>8 labeled 1941 to 1954. How did you date this</p> <p>9 image?</p> <p>10 A That was a similar situation. It's by</p> <p>11 bracketing the dates of -- known dates with what's</p> <p>12 seen in this image, and it gives me a range of</p> <p>13 dates that this could have fallen in between.</p> <p>14 Q Did you compare this image to the circa</p> <p>15 1940s image?</p> <p>16 A I have done a comparison. It definitely</p> <p>17 shows new developments.</p> <p>18 Q What image did you use to bracket the</p> <p>19 dates?</p> <p>20 A Well, since it says 1941 to '54, I would</p> <p>21 have to say there's a '41 date in there and a '54</p> <p>22 that would bracket the time frame that this</p>	<p style="text-align: right;">Page 109</p> <p>1 left photograph?</p> <p>2 A Okay. It's hard to see. Do you want me</p> <p>3 to mark them both?</p> <p>4 Q Sure. Is there anything else that you</p> <p>5 used to bracket the time?</p> <p>6 A I don't -- I don't remember. I'd have</p> <p>7 to -- I don't believe so. There could be other</p> <p>8 things in there, but just as I sit here, I don't</p> <p>9 remember exactly what it was.</p> <p>10 Q Are those -- do you see the two furnaces</p> <p>11 in the 1941 image just to the left of the tanks</p> <p>12 that you circled?</p> <p>13 A The two -- with the stacks in the middle?</p> <p>14 Q Yes.</p> <p>15 A Okay. I see that on the right</p> <p>16 photograph.</p> <p>17 Q Could you circle those for me in both</p> <p>18 images?</p> <p>19 A Okay. I can -- kind of zoom in a little</p> <p>20 on the left image. It's fairly hard for me to see</p> <p>21 it.</p> <p>22 Q Yeah.</p>

<p style="text-align: right;">Page 110</p> <p>1 MS. MENEES: Danny, could you --</p> <p>2 MR. HAMBRICK: In the left one, the</p> <p>3 circle is going to move. You're going to have to</p> <p>4 redo the circle on the left as well, on the</p> <p>5 previous.</p> <p>6 THE WITNESS: That's fine with me.</p> <p>7 MR. HAMBRICK: So this area?</p> <p>8 MS. MENEES: Yes.</p> <p>9 THE WITNESS: Yes.</p> <p>10 MR. HAMBRICK: There's a select tool that</p> <p>11 you can use to move your existing one, or else</p> <p>12 we're going to have to clear these and redo them.</p> <p>13 THE WITNESS: Okay. Let me see. I can't</p> <p>14 select. Huh? I see my mouse. I don't see a</p> <p>15 select tool.</p> <p>16 MS. MENEES: There you go.</p> <p>17 THE WITNESS: Well, I can't move it,</p> <p>18 then. Only you can move it.</p> <p>19 MR. HAMBRICK: There's a select tool next</p> <p>20 to text. Do you see the option is to add text?</p> <p>21 THE WITNESS: Text, draw, stamp, arrow,</p> <p>22 mouse -- mouse, text, draw, stamp, arrow. I don't</p>	<p style="text-align: right;">Page 112</p> <p>1 MS. MENEES: Exhibit 5. Okay.</p> <p>2 (Deposition Exhibit Number 5 was marked</p> <p>3 for identification.)</p> <p>4 BY MS. MENEES:</p> <p>5 Q Okay. This has been marked as Exhibit 5.</p> <p>6 Mr. Grip, does this accurately reflect your</p> <p>7 annotations on this photo?</p> <p>8 A Yes, my annotations for -- just as you</p> <p>9 requested.</p> <p>10 Q Okay. Could we go back to the report on</p> <p>11 page 47 and zoom out a little bit. Okay. Do you</p> <p>12 see the large structure next to where the furnaces</p> <p>13 you marked were?</p> <p>14 A Yes.</p> <p>15 Q Do you know what that structure is?</p> <p>16 A No. I can tell you it's a tall</p> <p>17 structure.</p> <p>18 Q Does it look taller than any of the other</p> <p>19 structures on the refinery?</p> <p>20 A It appears to be tall. I don't know if</p> <p>21 it's taller than everything. It's well above</p> <p>22 those features that you called the furnaces, I</p>
<p style="text-align: right;">Page 111</p> <p>1 see a select.</p> <p>2 MR. HAMBRICK: Here, I'll just erase it.</p> <p>3 I'll get rid of it.</p> <p>4 MS. MENEES: Why don't we just delete --</p> <p>5 I can -- we can redo the annotations, that's fine.</p> <p>6 THE WITNESS: Okay. You're kind of going</p> <p>7 beyond what I really did in the report.</p> <p>8 Let's see. I guess these are them.</p> <p>9 Let's see. And this is what I think -- I didn't</p> <p>10 use these furnaces for my dating purposes, but</p> <p>11 I -- I believe it's the vertical tanks that was</p> <p>12 used.</p> <p>13 BY MS. MENEES:</p> <p>14 Q Okay. So -- but based on these two</p> <p>15 images, those furnaces are in the same place as --</p> <p>16 in both photos?</p> <p>17 A They appear to be, yes.</p> <p>18 Q Okay.</p> <p>19 MS. MENEES: Danny, could you take a</p> <p>20 screen shot of this and label it as -- I think</p> <p>21 Exhibit 4? Let me see what exhibit we're on now.</p> <p>22 MR. HAMBRICK: This is going to be 5.</p>	<p style="text-align: right;">Page 113</p> <p>1 believe.</p> <p>2 Q Okay. Let me pull up --</p> <p>3 MS. MENEES: It is D-23, Danny.</p> <p>4 BY MS. MENEES:</p> <p>5 Q Mr. Grip, have you seen this -- or, I</p> <p>6 would like to introduce -- or show you this</p> <p>7 exhibit and mark it as Exhibit Number 6.</p> <p>8 (Deposition Exhibit Number 6 was marked</p> <p>9 for identification.)</p> <p>10 BY MS. MENEES:</p> <p>11 Q So can you tell what refinery this is</p> <p>12 for, Mr. Grip?</p> <p>13 A Well, it says Leonard refinery. So</p> <p>14 Leonard Alma.</p> <p>15 Q Yeah. So that's the same refinery as we</p> <p>16 were just looking at?</p> <p>17 A Okay. That's what it -- yes, that's what</p> <p>18 it says.</p> <p>19 MS. MENEES: Could we go to page 4 of</p> <p>20 that exhibit? Could you zoom out a little bit,</p> <p>21 Danny? For -- the last page of the exhibit.</p> <p>22 MR. HAMBRICK: Last page?</p>

<p style="text-align: right;">Page 114</p> <p>1 MS. MENEES: Yeah.</p> <p>2 BY MS. MENEES:</p> <p>3 Q Mr. Grip, do you recognize that</p> <p>4 structure?</p> <p>5 A Yes. That's what you were asking me</p> <p>6 questions about on the other photograph.</p> <p>7 Q Okay. Could you read the caption of that</p> <p>8 photo?</p> <p>9 A Out loud?</p> <p>10 Q Yes.</p> <p>11 A "Back in 1947, when Leonard Refineries</p> <p>12 built the midget cat cracker illustrated here, oil</p> <p>13 men said it couldn't be done."</p> <p>14 Q That's good enough. Thanks.</p> <p>15 So it says that that structure was built</p> <p>16 in 1947. And that's within the range of your</p> <p>17 dates for that photo, 1941 to '54, but it would</p> <p>18 seem that if that structure was built in 1947,</p> <p>19 that the photo must be from after 1947; is that</p> <p>20 right?</p> <p>21 A Well, I don't know how long it took them</p> <p>22 to build the midget cat cracker, but it would help</p>	<p style="text-align: right;">Page 116</p> <p>1 in tone, and it's obvious some type of feature set</p> <p>2 aside from development. Quite often you'll have,</p> <p>3 like I said before, disposal-type features set</p> <p>4 away from operations. And it may have been --</p> <p>5 when I brought that up, someone may have said, oh,</p> <p>6 that was this possible burn pit or -- I mean,</p> <p>7 that's a classic look to a burn pit type feature.</p> <p>8 Set aside, no obvious liquid surface.</p> <p>9 Q So when you said someone may have said</p> <p>10 that's a burn pit, who is someone?</p> <p>11 A I don't recall where I got the</p> <p>12 information on burn pit. I don't know if I read a</p> <p>13 document or saw it on a map. I don't recall.</p> <p>14 Q Could it have been from one of the other</p> <p>15 experts?</p> <p>16 A I mean, it could have been or I could</p> <p>17 have just said from the positioning of it that</p> <p>18 it's a burn pit. I'm not certain.</p> <p>19 Q So what you can tell physically from this</p> <p>20 pit is that there is no liquid surface?</p> <p>21 A Let's see. I saw it in the vertical</p> <p>22 photograph. There's activity in that area. I saw</p>
<p style="text-align: right;">Page 115</p> <p>1 me bracket it closer to that photograph, that</p> <p>2 date. My estimate still agrees with this.</p> <p>3 It's -- my range is not wrong. But this would</p> <p>4 narrow it down some if that's the case.</p> <p>5 Q It would narrow it down to what, do you</p> <p>6 think?</p> <p>7 A Well, assuming that it was started and</p> <p>8 finished in 1947, then instead of 1941 to -- I</p> <p>9 can't remember what the other date is -- '53, I</p> <p>10 believe, or '54 -- it would be 1947 to '53 or '54.</p> <p>11 Q Okay. Let's go back to Exhibit 1,</p> <p>12 page 47. So now looking back at this photo, would</p> <p>13 you agree that it was taken in 1947 at the</p> <p>14 earliest?</p> <p>15 A Well, if that article is correct, then,</p> <p>16 yes, that cat cracker is visible. I don't know</p> <p>17 what was there before the cat cracker exactly, but</p> <p>18 it does seem to indicate 1947 as the earlier part</p> <p>19 of the bracketed coverage.</p> <p>20 Q So you also identified a burn pit in this</p> <p>21 photo. How did you identify that as a burn pit?</p> <p>22 A I believe, initially, it's an area dark</p>	<p style="text-align: right;">Page 117</p> <p>1 that it had a dark surface. I don't think it had</p> <p>2 berms or it had -- I just don't really recall.</p> <p>3 But I noted that it was set aside from the</p> <p>4 operations area. And I don't recall why I called</p> <p>5 it a burn pit.</p> <p>6 Q What about the pit in the upper right</p> <p>7 corner, or what you labeled pits? What can you</p> <p>8 tell me about those pits?</p> <p>9 A Well, there were pits visible in that</p> <p>10 area in the 1938 imagery. I had showed you that</p> <p>11 and discussed that. And it's been -- they</p> <p>12 increased the tankage up there and they reworked</p> <p>13 those pit areas to be a different orientation,</p> <p>14 this photograph.</p> <p>15 Q Okay. So you can still tell that there</p> <p>16 are pits in this image?</p> <p>17 A Yes. I could see it in subsequent</p> <p>18 vertical photographs as well.</p> <p>19 Q And then you also annotated in several</p> <p>20 places or in a couple of places that tanks are</p> <p>21 first visible. So that is from all of the prior</p> <p>22 photographs that you saw; these are the first</p>

<p style="text-align: right;">Page 118</p> <p>1 times that you saw these tanks?</p> <p>2 A Yes. It's in that bracketed coverage.</p> <p>3 It shows change on the site, increased tankage on</p> <p>4 the facility.</p> <p>5 Q Has the pit trap changed at all in this</p> <p>6 image compared to previous images?</p> <p>7 A I could tell you the location looks to be</p> <p>8 about the same, but with the angle that I'm</p> <p>9 looking at in this photograph, I can't determine</p> <p>10 the surface area, if it's changed.</p> <p>11 Q Could you actually see the pit in this</p> <p>12 image, pit trap, or were you just marking where it</p> <p>13 would be?</p> <p>14 A Well, I see where it would be relative to</p> <p>15 other features here that are visible, and</p> <p>16 I know -- and I can see the dark surface as well.</p> <p>17 Q And has the low wet area changed</p> <p>18 significantly or changed at all since the previous</p> <p>19 images?</p> <p>20 A I just see the location, and I'm</p> <p>21 indicating where it is. I didn't note a</p> <p>22 particular change there. But it gives the viewer</p>	<p style="text-align: right;">Page 120</p> <p>1 A I don't know if I've seen that page. But</p> <p>2 I know I've seen Sanborns of Alma Leonard.</p> <p>3 MS. MENEES: Let's scroll -- can you</p> <p>4 scroll to the next page, Danny? Next page.</p> <p>5 BY MS. MENEES:</p> <p>6 Q Is this a page that you've seen,</p> <p>7 Mr. Grip?</p> <p>8 A Yes, it looks like it.</p> <p>9 Q Okay.</p> <p>10 MS. MENEES: Danny, could we zoom in on</p> <p>11 the lower half where the north arrow is below that</p> <p>12 and the whole -- I guess the whole image? Yeah.</p> <p>13 That. Okay.</p> <p>14 BY MS. MENEES:</p> <p>15 Q And then moving -- I guess, did you use</p> <p>16 any of these markings in your annotations of the</p> <p>17 aerial imagery?</p> <p>18 A Well, just to get the name of what they</p> <p>19 called it when --</p> <p>20 THE REPORTER: I'm sorry. Just to get...</p> <p>21 THE WITNESS: The name of what the</p> <p>22 Sanborn company called these features.</p>
<p style="text-align: right;">Page 119</p> <p>1 an idea of where that is relative to tanks over</p> <p>2 there on the left side of the photograph.</p> <p>3 Q Are there any other significant</p> <p>4 environmental features in this photo?</p> <p>5 A That's all that I recall right now.</p> <p>6 Q Okay.</p> <p>7 MR. PETIT: Sydney, is that Exhibit 1 --</p> <p>8 what page?</p> <p>9 MS. MENEES: This is Exhibit 1, page 47.</p> <p>10 BY MS. MENEES:</p> <p>11 Q Okay. Let's move to the next image.</p> <p>12 This was a little bit small and hard to read in</p> <p>13 the report. So I found the original -- or a</p> <p>14 bigger, higher resolution image of this map. It</p> <p>15 should be D-02. It looks like we're on Exhibit 7</p> <p>16 now.</p> <p>17 (Deposition Exhibit Number 7 was marked</p> <p>18 for identification.)</p> <p>19 BY MS. MENEES:</p> <p>20 Q So I'm showing you, Mr. Grip, what's been</p> <p>21 marked as Exhibit 7. It is a Sanborn map of Alma,</p> <p>22 Michigan. And have you seen this document before?</p>	<p style="text-align: right;">Page 121</p> <p>1 BY MS. MENEES:</p> <p>2 Q Okay. And that was the pit trap</p> <p>3 primarily, right?</p> <p>4 A Yes, I believe there's two features on</p> <p>5 the right side of that screen.</p> <p>6 MS. MENEES: Danny, could we zoom in to</p> <p>7 this very little -- where it says Leonard</p> <p>8 refineries and to the end of the page? So -- it's</p> <p>9 still hard to see.</p> <p>10 BY MS. MENEES:</p> <p>11 Q Do you see where it says "trap," though?</p> <p>12 A Yes, I see it.</p> <p>13 Q And this is one of those instances where</p> <p>14 it was labeled trap on the map, but you labeled it</p> <p>15 a pit. Why did you call it a pit?</p> <p>16 A I'm not sure that I did. Didn't I call</p> <p>17 it trap? Well, to me, a trap or a pit or a sump</p> <p>18 can be interchangeable. I mean, that's something</p> <p>19 that's there to capture oil or waste material. I</p> <p>20 see the item. It has the same view. But I</p> <p>21 thought I called it trap on my images, but</p> <p>22 maybe --</p>

<p style="text-align: right;">Page 122</p> <p>1 Q As I recall, it said -- we can go back</p> <p>2 and show you this, but it said pit, in</p> <p>3 parentheses, trap on Sanborn.</p> <p>4 A Okay. Well --</p> <p>5 Q So those were used interchangeably; is</p> <p>6 that correct?</p> <p>7 A Yeah. In this case, it looks like it's</p> <p>8 an environmentally significant feature.</p> <p>9 Q Okay. Also, right below the trap, it</p> <p>10 says, "burn down sump." Did you note that in any</p> <p>11 of your aerial images -- aerial image analysis?</p> <p>12 A I believe I labeled that, but you'd have</p> <p>13 to turn the page and let me refresh my memory.</p> <p>14 Q Okay. There's just one more thing before</p> <p>15 we go back to that. Do you know when this map is</p> <p>16 from?</p> <p>17 A I had the date. I don't recall, as I sit</p> <p>18 here. You'd have to look back at the date that I</p> <p>19 used.</p> <p>20 MS. MENEES: Okay. Danny, can we zoom</p> <p>21 out and go back to the whole document?</p> <p>22 BY MS. MENEES:</p>	<p style="text-align: right;">Page 124</p> <p>1 A Oh. Sometimes they have notes by the</p> <p>2 features that are new. You know, I don't know if</p> <p>3 it was the name of the scan. Someone else said</p> <p>4 they had done a study on the revisions of this. I</p> <p>5 don't recall.</p> <p>6 Q Okay. So sitting here today, you can't</p> <p>7 determine what the date is for this map?</p> <p>8 A Well, I don't recall what I used to</p> <p>9 determine the date of that map. I know that it</p> <p>10 was taken from a revision or something like that.</p> <p>11 Q Okay. You dated this map December 1948</p> <p>12 in your report.</p> <p>13 A Okay.</p> <p>14 Q But you don't know how you got to that</p> <p>15 date from 1938?</p> <p>16 A I don't recall, but I believe, if you</p> <p>17 look at the items that are on the map, it shows</p> <p>18 change that would have happened between '38 and</p> <p>19 '48.</p> <p>20 But the real thing that I used this map</p> <p>21 for is the location of that pit that was visible</p> <p>22 in 1938 photography and it was also visible after</p>
<p style="text-align: right;">Page 123</p> <p>1 Q Is there a place on the Sanborn map where</p> <p>2 you can see what the date is?</p> <p>3 A I believe there are several places on the</p> <p>4 Sanborn.</p> <p>5 Q Can you direct us to where there is one?</p> <p>6 A Well, this is one. There might be some</p> <p>7 revision dates in here. That could be a date</p> <p>8 maybe when the initial map came out under the</p> <p>9 thing -- upper right corner.</p> <p>10 Q Okay.</p> <p>11 MS. MENEES: So can we zoom in on the</p> <p>12 upper right corner, Danny?</p> <p>13 THE WITNESS: Okay. Well, just an</p> <p>14 example. There's a July 24 when it was initially</p> <p>15 placed there, I guess the map of Alma, Michigan.</p> <p>16 Additional sheets, September '38. You know, I</p> <p>17 guess they added additional sheets with</p> <p>18 development. And there's also revisions to this</p> <p>19 as well.</p> <p>20 BY MS. MENEES:</p> <p>21 Q Where would you find out when those</p> <p>22 revisions took place?</p>	<p style="text-align: right;">Page 125</p> <p>1 that, and it just gave me the name of that</p> <p>2 particular feature. There is no significance</p> <p>3 other than that for this particular map. It gave</p> <p>4 me a more specific name for that trap or pit and</p> <p>5 the burn-down sump.</p> <p>6 Q Okay.</p> <p>7 MS. MENEES: Can we zoom out a little bit</p> <p>8 again, Danny, and go back to the bottom of the</p> <p>9 photograph where the map of the refinery is? A</p> <p>10 little bit bigger than that so he gets the whole</p> <p>11 refinery.</p> <p>12 BY MS. MENEES:</p> <p>13 Q Can you tell where the property line is</p> <p>14 in this image?</p> <p>15 A I don't see -- I see some fence lines in</p> <p>16 there, but, you know, I didn't do an analysis of</p> <p>17 fence lines or property lines. I just identified</p> <p>18 refinery operations in that area.</p> <p>19 Q Okay. Do You recall in the 19 -- the</p> <p>20 circa 1940s photo, there were five tanks that you</p> <p>21 noted that helped bracket the time?</p> <p>22 A Yes.</p>

<p style="text-align: right;">Page 126</p> <p>1 Q You could see those in this image?</p> <p>2 A I believe I see them, yes.</p> <p>3 Q Could you circle them for me?</p> <p>4 A I lost my annotation tools. Let's see.</p> <p>5 Danny, is there something that's changed?</p> <p>6 Because I no longer have annotation capabilities.</p> <p>7 MR. HAMBRICK: No, nothing has changed.</p> <p>8 Is it hidden behind something? Maybe the</p> <p>9 annotation bar is behind another screen.</p> <p>10 THE WITNESS: It's not there. I don't</p> <p>11 know what to tell you. Let me see. I'd annotate</p> <p>12 it, but there's no -- I can share my screen and</p> <p>13 show you what I see, but there's no annotation bar</p> <p>14 anymore.</p> <p>15 MS. MENEES: Can we go off the record for</p> <p>16 a second?</p> <p>17 (Discussion held off the record.)</p> <p>18 THE WITNESS: Okay. This is what --</p> <p>19 let's see. This is what I think are the tanks,</p> <p>20 but I'm not looking at this with a georeferenced</p> <p>21 image so I'm not certain that that's the feature</p> <p>22 but it appears to be relatively -- just because</p>	<p style="text-align: right;">Page 128</p> <p>1 BY MS. MENEES:</p> <p>2 Q Mr. Grip, does that accurately reflect</p> <p>3 your annotation on the 19 -- on the Leonard</p> <p>4 Sanborn map?</p> <p>5 A Yes. As you requested, I circled what I</p> <p>6 thought were those tanks that we had discussed</p> <p>7 earlier.</p> <p>8 Q Okay. Going back to your expert report,</p> <p>9 Exhibit 1, let's go to page 46. Those tanks</p> <p>10 appeared in this image, and then going to the next</p> <p>11 page, you noted they were not in this image. So</p> <p>12 could that help you date the Sanborn map?</p> <p>13 A Well, this is a range date too. So I</p> <p>14 wouldn't typically use that. It's too big of a</p> <p>15 bracketed date to do a comparison, but it does</p> <p>16 show that those features are removed.</p> <p>17 But I'm not trying to testify on how</p> <p>18 Sanborns are made. You know, when they update</p> <p>19 these things, they could have taken them off or --</p> <p>20 or failed to update that particular area.</p> <p>21 Q Right. I was just trying to get some</p> <p>22 clarity on the date of the Sanborn map because</p>
<p style="text-align: right;">Page 127</p> <p>1 it's in that bottom right corner and it's the same</p> <p>2 number.</p> <p>3 BY MS. MENEES:</p> <p>4 Q Okay. And when did you -- you had</p> <p>5 pinpointed when those tanks first appeared and</p> <p>6 then when they disappeared; isn't that right?</p> <p>7 A It wasn't a focus of my analysis, but</p> <p>8 that's something that I looked at to help date</p> <p>9 photography. I don't have it memorized, the dates</p> <p>10 that it came in and when it was last seen.</p> <p>11 Q Okay.</p> <p>12 MS. MENEES: Danny, could you take a</p> <p>13 screen shot of this?</p> <p>14 MR. HAMBRICK: I have it. We're going to</p> <p>15 add it as 8?</p> <p>16 MS. MENEES: Yes.</p> <p>17 (Deposition Exhibit Number 8 was marked</p> <p>18 for identification.)</p> <p>19 MR. HAMBRICK: Okay. It's available in</p> <p>20 the marked exhibits now. I'm going to show it to</p> <p>21 him shortly.</p> <p>22 MS. MENEES: Thanks.</p>	<p style="text-align: right;">Page 129</p> <p>1 it's dated 1938, but in your report it says 1948.</p> <p>2 So --</p> <p>3 A Well --</p> <p>4 Q Go ahead?</p> <p>5 A We can look at another photograph, but I</p> <p>6 wouldn't use this bracketed date to narrow down</p> <p>7 that image, or map date.</p> <p>8 Q So in this 19 -- this is -- if you</p> <p>9 recall, we talked about this image and the large</p> <p>10 structure that appeared first in 1947. So would</p> <p>11 it be fair to say if the tanks are in the Sanborn</p> <p>12 map and they're not in this image and the tanks</p> <p>13 are in the 1941 image, that the Sanborn map was</p> <p>14 made sometime between 1941 and 1947?</p> <p>15 A Assuming they updated every feature</p> <p>16 correctly on the Sanborn map, you could say</p> <p>17 something like that. Again, I'm only using the</p> <p>18 Sanborn to get the name of what that pit or trap</p> <p>19 from the Sanborn says. And that trap or pit was</p> <p>20 there before and after the Sanborn date either</p> <p>21 way.</p> <p>22 Q Let's move to page 49 of this report.</p>

<p style="text-align: right;">Page 130</p> <p>1 How did you determine the date of this photo?</p> <p>2 A This was annotated on the film or it was</p> <p>3 found on metadata included with the scans.</p> <p>4 Q Okay. And what significant environmental</p> <p>5 features do you see in this photo?</p> <p>6 A Well, we still see north of the</p> <p>7 Chesapeake and Ohio Railroad the presence of those</p> <p>8 pits and that they have changed since the 1938</p> <p>9 photograph. They've been reoriented and a new</p> <p>10 tank has been produced to the north -- or</p> <p>11 constructed to the north of the location.</p> <p>12 We still see the pit or -- that was</p> <p>13 called a trap on the Sanborn in that area. I've</p> <p>14 indicated the dark rectangular surface and the</p> <p>15 fact that it's in the exact same place with</p> <p>16 georeference photographs. And I still see the</p> <p>17 area of the burn pit is still disturbed and</p> <p>18 unredeveloped on this date.</p> <p>19 Q Okay. So what can you tell me about the</p> <p>20 pits in this image? Can you tell how big they</p> <p>21 are?</p> <p>22 A Well, I haven't made that analysis. But</p>	<p style="text-align: right;">Page 132</p> <p>1 rectangle, if you look in the 1938 photograph,</p> <p>2 it's a rectangular area with smaller pits or walls</p> <p>3 that separate materials.</p> <p>4 Q Okay. Is there any change to the low wet</p> <p>5 area?</p> <p>6 A I didn't note a change. It remains to be</p> <p>7 a low area south of the tanks.</p> <p>8 Q Okay. Let's move to the next image. So</p> <p>9 it looks like you made some blue notations on</p> <p>10 this. What are those?</p> <p>11 A Those are drainage pathways around the</p> <p>12 site, either a visible ditch or some kind of</p> <p>13 drainage feature that was visible in the aerial</p> <p>14 photography.</p> <p>15 Q How did you identify those by looking at</p> <p>16 the aerial photographs?</p> <p>17 A Well, when I look at aerial photographs,</p> <p>18 I have a -- remember, a three-dimensional view of</p> <p>19 these things. So I can see low areas -- if</p> <p>20 there's a topographic low area, I can see it. I</p> <p>21 can also see the signature of a ditch being a</p> <p>22 straight line that may be dark if it's wet or low.</p>
<p style="text-align: right;">Page 131</p> <p>1 I could measure these pits on my imagery. Yes.</p> <p>2 But I haven't memorized that.</p> <p>3 Q Okay. And can you tell whether they're</p> <p>4 filled?</p> <p>5 A Well, they still have an opening. They</p> <p>6 still have the signature of their existence.</p> <p>7 There's been no obvious material pushed over it to</p> <p>8 close it. So it still exists. Although the one</p> <p>9 up to the north has definitely changed from its</p> <p>10 original footprint.</p> <p>11 Q So it changed -- how so?</p> <p>12 A Well, it's been moved slightly to the --</p> <p>13 well, first of all, there's two large rectangular</p> <p>14 areas where, before, it was a singular rectangular</p> <p>15 area with kind of bays, I would say, inside it.</p> <p>16 THE REPORTER: Kind of...</p> <p>17 THE WITNESS: Bays, B-A-Y-S. So there's</p> <p>18 been some change to the pits there. They've been</p> <p>19 reoriented.</p> <p>20 BY MS. MENEES:</p> <p>21 Q What do you mean by bays?</p> <p>22 A Well, instead of just being, say, one</p>	<p style="text-align: right;">Page 133</p> <p>1 That's basically how maps are made.</p> <p>2 Q So it was based on the topographic</p> <p>3 change?</p> <p>4 A In a topographic change or I see the</p> <p>5 signature of a drainage feature in that area.</p> <p>6 Q Could you see those drainage features on</p> <p>7 any of the previous images?</p> <p>8 A I probably could. I didn't map them on</p> <p>9 every date.</p> <p>10 THE REPORTER: I didn't map them...</p> <p>11 THE WITNESS: On every date. I typically</p> <p>12 pick a higher resolution date that gives you an</p> <p>13 idea of the drainage. So the lower altitude,</p> <p>14 higher resolution, I can identify drainage</p> <p>15 features easier.</p> <p>16 BY MS. MENEES:</p> <p>17 Q And the pits from the 1953 photo are</p> <p>18 still visible in this photo?</p> <p>19 A Yes. They're, again, reoriented compared</p> <p>20 to the 1938. There's been some change there.</p> <p>21 Q Changes from the 1938 photo or the 1953</p> <p>22 photo?</p>

<p style="text-align: right;">Page 134</p> <p>1 A I'm sorry, the 1938 photo. The basic 2 footprint is the same since 1953.</p> <p>3 Q Are there any other significant 4 environmental features in this photo?</p> <p>5 A It does show an active an area around the 6 pit. That was labeled a trap from the Sanborn. 7 It's still visible. And then a more distinct 8 area, I believe, where the burn pit is, still set 9 aside and undeveloped.</p> <p>10 Q Okay. Let's move to the next image. 11 What is -- why did you include this image?</p> <p>12 A There may be some interest. It was a 13 photograph that I had. I didn't know if someone 14 involved in the litigation would be interested in 15 this. But it shows the pits that are there and 16 some new tanks.</p> <p>17 Q So those tanks are visible there for the 18 first time in the 1957 image?</p> <p>19 A Yes. That's what I have labeled.</p> <p>20 Q Are there any other significant 21 environmental features of this photo.</p> <p>22 A None that I've labeled.</p>	<p style="text-align: right;">Page 136</p> <p>1 at, I don't see specific spills. I don't recall 2 specific spills in this one.</p> <p>3 Q Did you identify any releases at the 4 Leonard refinery?</p> <p>5 A Visually, I can't see, like, a spill or a 6 ruptured tank wall or anything like that. I mean, 7 I can't see beneath the surface. So if there's 8 been some contamination relative to the pit, 9 disposal-type features, then that's somewhere to 10 look.</p> <p>11 Q Did you identify any waste removal at the 12 Leonard refinery?</p> <p>13 A I'm not sure -- removal? I'm not sure 14 how I would see removal. I didn't identify 15 excavation other than the creation of those pits.</p> <p>16 Q Did you identify any landfilling at the 17 Leonard refinery?</p> <p>18 A No, just --</p> <p>19 MR. PETIT: Object. Asked and answered.</p> <p>20 THE WITNESS: Just that I saw creation of 21 pits.</p> <p>22 BY MS. MENEES:</p>
<p style="text-align: right;">Page 135</p> <p>1 Q Okay. We've now gone through all of the 2 photographs of Leonard. Did you identify any 3 leaks at the Leonard refinery?</p> <p>4 A I guess there's a potential area to look 5 for -- I didn't specifically call it a leak -- but 6 that low wet area south of the tanks. But that's 7 all that I recall.</p> <p>8 Q So that low wet area, why didn't you 9 label it as a leak?</p> <p>10 A Well, I don't see a leak, but it's a 11 consistently wet area. I just called that out as 12 a feature of interest.</p> <p>13 Q But you're not comfortable going on 14 record and saying it is a leak?</p> <p>15 A I don't see -- I can't specifically 16 narrow it down that far. But like I said, someone 17 else -- if someone else has other information 18 about that, then that would help determine what 19 that is.</p> <p>20 Q Did you identify any spills at the 21 Leonard refinery?</p> <p>22 A Much of the resolution that I'm looking</p>	<p style="text-align: right;">Page 137</p> <p>1 Q Did you identify any environmental 2 contamination at the Leonard refinery?</p> <p>3 A Well, I never -- you don't identify 4 contamination. I can't see chemicals. But I can 5 see features that are -- that would be a source of 6 contamination. And in that way, yes, I see pits. 7 But I can't see contamination itself.</p> <p>8 Q Okay. So the pits would be the source of 9 any environmental contamination? There's nothing 10 else?</p> <p>11 A Well, I'm not saying there's nothing 12 else, but relative to the aerial photographs, 13 those would be the sources -- potential 14 contamination sources.</p> <p>15 Q Did you identify any disposal activity at 16 the Leonard refinery?</p> <p>17 A I would consider the pits to be a 18 disposal activity. Also, the burn pit, which is 19 also a pit, would be considered a disposal 20 activity.</p> <p>21 Q Okay. So you didn't see any activities, 22 anything except -- sorry, strike that.</p>

<p style="text-align: right;">Page 138</p> <p>1 You only saw the pits with respect to</p> <p>2 disposal activities, though. You didn't see any</p> <p>3 other indications of a disposal activity?</p> <p>4 A Well, as I answered before, I didn't see</p> <p>5 landfilling. The focus of what I saw on this site</p> <p>6 was pits, though. So I don't know if that answers</p> <p>7 your question, but pits is all that I identified</p> <p>8 as a disposal activity.</p> <p>9 Q Okay. But there was no actual activity</p> <p>10 of putting items in the pit that you saw?</p> <p>11 A Okay. Well, I didn't see a tanker back</p> <p>12 up into the pit and unloading waste into the pit,</p> <p>13 but that -- I don't need to see that to know that</p> <p>14 that's a disposal feature; a pit is a very</p> <p>15 classic-looking disposal feature.</p> <p>16 Q And besides that one 1941 image, did</p> <p>17 you -- well, that wasn't taken in December 1941;</p> <p>18 it was taken in -- September 8th, 1941. Did you</p> <p>19 see any images of the Leonard refinery that were</p> <p>20 definitely taken between December 1941 and 1945?</p> <p>21 A I don't know -- let's see. All that I've</p> <p>22 seen I've included in my report. I know -- I can</p>	<p style="text-align: right;">Page 140</p> <p>1 Q Okay. So this is a plat plan of Midwest</p> <p>2 refinery. It is undated. Do you have any -- and</p> <p>3 you didn't provide an estimated date either. Do</p> <p>4 you know when this plat plan is from?</p> <p>5 A I made no attempt to narrow the date down</p> <p>6 and I didn't have a date on it. So it's just to</p> <p>7 show what those features were that we'll be seeing</p> <p>8 in later dates.</p> <p>9 Q Okay. Let's move to the next -- sorry.</p> <p>10 Were you going to say something?</p> <p>11 A Or where they are relative to other</p> <p>12 features that are seen. So I made no attempt to</p> <p>13 date that.</p> <p>14 MR. PETIT: I'm sorry. Sydney, what page</p> <p>15 is that on Exhibit 1?</p> <p>16 MS. MENEES: 55.</p> <p>17 BY MS. MENEES:</p> <p>18 Q Moving to the next image. This is a 1937</p> <p>19 photograph. There are no significant</p> <p>20 environmental features in this photo, right?</p> <p>21 A Well, I mean, it shows the -- I don't see</p> <p>22 pits or anything like that, but I see that there</p>
<p style="text-align: right;">Page 139</p> <p>1 determine what happened to an extent in between</p> <p>2 the two photographs -- if I see something before</p> <p>3 the period with no photographs and after, I could</p> <p>4 tell that something has changed in that time</p> <p>5 period, but I -- if it's not listed in my map, in</p> <p>6 my report, I haven't seen. So everything I've</p> <p>7 seen I've included in the report.</p> <p>8 Q Okay.</p> <p>9 MS. MENEES: Shall we take a break?</p> <p>10 (Whereupon, a short recess was taken.)</p> <p>11 BY MS. MENEES:</p> <p>12 Q All right. I'd like to go to page 55 of</p> <p>13 Exhibit 1. And just quickly, before we get into</p> <p>14 this, Mr. Grip, did you confer with counsel during</p> <p>15 break the? You're muted.</p> <p>16 A Sorry about that. Yes, I spoke with him.</p> <p>17 Q Did you discuss any of the substance of</p> <p>18 your testimony?</p> <p>19 A To slow down, you know, I'm having</p> <p>20 trouble speaking too fast and the court reporter</p> <p>21 is not catching me. I was asking if I'm loud</p> <p>22 enough.</p>	<p style="text-align: right;">Page 141</p> <p>1 was some development there on that date. That's</p> <p>2 all.</p> <p>3 Q Moving to the next photograph. There are</p> <p>4 no significant environmental features in this</p> <p>5 photograph, right?</p> <p>6 A Just insofar as there's no pits labeled,</p> <p>7 but there may be a significance to what's</p> <p>8 developed there to someone else.</p> <p>9 Q And the next photograph is also a ground</p> <p>10 photo. Are there any significant environmental</p> <p>11 features in this photograph?</p> <p>12 A Again, I've not identified pits or</p> <p>13 anything like that, but someone else could see</p> <p>14 significance to what's developed there.</p> <p>15 Q And how did you date these -- the three</p> <p>16 ground photos as from 1937?</p> <p>17 A It would be either in the file name or</p> <p>18 from the back of the photograph. I'd have to</p> <p>19 refer to my notes.</p> <p>20 Q All right. Let's move to the next image.</p> <p>21 That's page 59 of Exhibit 1. This is labeled</p> <p>22 6/26/1938, Alma, Michigan. And what significant</p>

<p style="text-align: right;">Page 142</p> <p>1 environmental features do you see in this photo?</p> <p>2 A Well, I see the location of a pit to the</p> <p>3 south of -- or -- well, just offset from a levy</p> <p>4 system for the tanks north of the rail spur. And</p> <p>5 I see the presence of the tanks and the fact that</p> <p>6 the facility is in operation.</p> <p>7 Q You noted a pit that looks like it's on</p> <p>8 the rail spur. Is it typical to see a pit that</p> <p>9 close to rails?</p> <p>10 MR. PETIT: Objection. Assumes facts not</p> <p>11 in evidence.</p> <p>12 THE WITNESS: It's not -- it's close to</p> <p>13 the rails. It's not on the rail. It's -- it's</p> <p>14 within a berm surrounding some tanks. It's kind</p> <p>15 of split the berm in that area.</p> <p>16 BY MS. MENEES:</p> <p>17 Q And how did you come to identify that</p> <p>18 feature as a pit?</p> <p>19 A It's a classic pit-type feature. It's</p> <p>20 got berms. It's not containing a spill. It's not</p> <p>21 associated with tankage. And it's just off by</p> <p>22 itself, dark in tone.</p>	<p style="text-align: right;">Page 144</p> <p>1 this photo?</p> <p>2 A I don't have any pits marked, but it</p> <p>3 shows how the berms are set around the tanks and</p> <p>4 it would contain --</p> <p>5 THE REPORTER: I'm sorry. How the berms</p> <p>6 are set...</p> <p>7 THE WITNESS: Surround the tanks.</p> <p>8 MR. PETIT: Randy, I don't know, but your</p> <p>9 voice kind of comes in and out a little bit. So</p> <p>10 maybe scoot a little further back from your</p> <p>11 microphones. I'm thinking -- well, maybe not that</p> <p>12 far back. We'll see. I know what Denise is</p> <p>13 having a hard time with.</p> <p>14 THE WITNESS: I'll try to slow down to</p> <p>15 make -- I think it's clipping to start again.</p> <p>16 Okay. I'll do my best to slow it down.</p> <p>17 BY MS. MENEES:</p> <p>18 Q Okay. So you were saying that there are</p> <p>19 berms around the tanks in this image?</p> <p>20 A Yes.</p> <p>21 Q And then moving to the next image, is</p> <p>22 there anything significant about this image?</p>
<p style="text-align: right;">Page 143</p> <p>1 Q You have marked on this photograph as</p> <p>2 well, "Access road visible and future location of</p> <p>3 landfill."</p> <p>4 What is the significance of that marking?</p> <p>5 A Well, it shows there's activity in 1938,</p> <p>6 that there's an access. It's a dirt path that</p> <p>7 goes back into the woods there with a turnaround.</p> <p>8 And then later here, as you'll see, a</p> <p>9 very distinctive landfilling-type operation or</p> <p>10 disposal operation in that area.</p> <p>11 Q Could landfilling be already occurring in</p> <p>12 this image?</p> <p>13 A I don't -- I don't see a significant</p> <p>14 elevation change from the natural surroundings.</p> <p>15 It just looks to be a dirt road. I can't say that</p> <p>16 there's not some very small amount of material</p> <p>17 there.</p> <p>18 Q Is there anything else significant about</p> <p>19 this photo?</p> <p>20 A That's all I have labeled.</p> <p>21 Q Okay. Let's move to the next image. Are</p> <p>22 there any significant environmental features in</p>	<p style="text-align: right;">Page 145</p> <p>1 A No. It's just the structure of the tank</p> <p>2 that I saw. I don't see any pits or anything like</p> <p>3 that.</p> <p>4 Q Moving to the next image, it looks like</p> <p>5 the same tank without a person. Is there anything</p> <p>6 significant about this image?</p> <p>7 A No. It's a photograph I had, so I wanted</p> <p>8 to include it in my report.</p> <p>9 Q Moving to the next image, what can you --</p> <p>10 what -- are there any significant environmental</p> <p>11 features in this photo?</p> <p>12 A Well, it shows the tanks and how close</p> <p>13 they are to the rail. It also shows just the</p> <p>14 surface within the boundaries of the tanks.</p> <p>15 But -- I don't see obvious spills, but I mean, you</p> <p>16 could see where they would be contained in those</p> <p>17 berms if they did occur.</p> <p>18 Q So you wouldn't characterize the berms,</p> <p>19 the bermed areas, as a pit?</p> <p>20 A No. That's a bermed area. It's a</p> <p>21 retaining levy area or dike.</p> <p>22 Q And what about the light part on the</p>

<p style="text-align: right;">Page 146</p> <p>1 bottom left-hand corner of the photo, what is 2 that?</p> <p>3 A I believe it's a shed surface, shed roof.</p> <p>4 Q And then if we go back to page 59 of 5 this, where in the image, the aerial image, was 6 that ground photograph taken? Can you tell?</p> <p>7 A I haven't really analyzed exactly where 8 it was. I mean, it's somewhere along the rail 9 spur. I can't tell the direction. I haven't 10 attempted to. It could be facing east or west 11 along that spur. It's got tanks on both sides of 12 the spur.</p> <p>13 Q Okay.</p> <p>14 A If I looked at it more, I might be able 15 to narrow it down, but I didn't attempt to.</p> <p>16 Q Okay. Let's move back to page 64 of 17 Exhibit 1. This is the next photograph in your 18 report. Do you know what the dark liquid is in 19 this photo?</p> <p>20 A Well, I can't taste it or touch it, but, 21 I mean, it's an oil tank and it's down the side of 22 the oil tank, so I would have to say it's oil.</p>	<p style="text-align: right;">Page 148</p> <p>1 like that because it's just reflecting -- you 2 know, it's light reflecting off it. It's like a 3 mirror to the sky. But, you know, it's not 4 capturing a spill from, you know, a tank. So, you 5 know, it's got -- it looks to be a disposal-type 6 feature to me. Maybe tank bottoms or something 7 like that.</p> <p>8 Q Tank bottoms?</p> <p>9 A Yes.</p> <p>10 Q What does that mean?</p> <p>11 A Well, when they clean out the tank, if 12 they're going to change what they put in it -- you 13 know, there's different reasons for clearing out 14 material that settles at the bottom of the tank. 15 But that's one of the type -- usages in 16 refineries, is handling tank bottoms.</p> <p>17 I've seen them put them into pits and 18 leave them there, or sometimes they'll dig a hole 19 within the berm of the pit and bury it. But 20 that's generally a feature that's short lived. 21 You don't always see it.</p> <p>22 Q Do you typically see pits like this so</p>
<p style="text-align: right;">Page 147</p> <p>1 Q Okay. And do you know what stage of oil 2 it is? Do you know whether it's crude or product 3 or what?</p> <p>4 A I'm not -- I have to look at the tanks 5 based on that. I'm not sure, as I sit here. 6 There may be documents that show what's in those 7 particular tanks, but I made no attempt to do 8 that. It's an obvious spill-type feature.</p> <p>9 Q Okay. Let's go to --</p> <p>10 A I did want to -- you had asked me if I 11 failed to point something out, what have you. 12 That pit that we saw along the -- north of the 13 rail spur can be seen in the bottom portion of 14 that screen, how it's offset from the berms.</p> <p>15 Q Could you circle that for me? So that is 16 the pit you noted in the 1938 aerial?</p> <p>17 A Yes, you can see that it's offset from 18 the line of the -- the berm that goes around the 19 other tanks where it kind of splits the berm.</p> <p>20 Q So can you tell what liquid is in the 21 pit?</p> <p>22 A No, I can't give you a tone or anything</p>	<p style="text-align: right;">Page 149</p> <p>1 close to rail spurs?</p> <p>2 A I wouldn't say it's typical, but it's not 3 something that's totally unheard of either. I 4 mean, it's not like it's -- it's so far from the 5 rail that it's affecting the cars or anything. 6 It's not abnormal.</p> <p>7 Q You mentioned that disposal areas are 8 sometimes more removed from the refinery area, but 9 this seems to be in the middle of the refinery. 10 Is that unusual if it were a disposal area?</p> <p>11 A Well, it's not in the middle of the 12 refinery. It's associated with the tank farm. 13 And there are several instances that I've seen 14 with other refineries that showed pits out in the 15 tank farm as well.</p> <p>16 Now, pits that are near where the process 17 area is, yeah, they're generally set aside in 18 unused areas. But when you see a pit near the -- 19 a tank farm, generally it's used to handle 20 material that's either spilled into a bermed area 21 or the tank bottom, something like that, so they 22 don't have to truck it around too much.</p>

<p style="text-align: right;">Page 150</p> <p>1 Q Why didn't you label this as a pit in 2 your expert report?</p> <p>3 A I just -- I didn't. There's a lot of 4 sites. I just didn't mark them, but in review, I 5 said, oh -- you know, I saw it in the review.</p> <p>6 Q Could the liquid in the -- that alleged 7 pit be water?</p> <p>8 A Well, these pits are open to the surface, 9 to the sky. So anytime there's a precipitation, 10 there's going to be some element of water to it. 11 But they're not designed to capture water. 12 They're a disposal-type feature. Why they make a 13 pit is to dispose of features. It's not for 14 collecting water, typically.</p> <p>15 Q That may be why, but could it be water?</p> <p>16 A I said there could be water in there, but 17 I would also say, if you sample it, you'll find 18 product or some kind of petroleum-type product 19 there.</p> <p>20 Q You're willing to go under oath and say 21 it's definitely got a petroleum product in there?</p> <p>22 A I would say it's more likely than not</p>	<p style="text-align: right;">Page 152</p> <p>1 for identification.)</p> <p>2 BY MS. MENEES:</p> <p>3 Q So this has been marked as Exhibit 9, the 4 1945 ground photograph in Alma, Michigan. Does 5 this accurately reflect your annotation on the 6 photo?</p> <p>7 A Yes.</p> <p>8 Q Okay. Could we open up now D-24. And 9 scroll to the next page. Next page. Yes.</p> <p>10 So this is a Sanborn map for Midwest 11 Refineries. It's from your report, but this image 12 is high resolution. Could you look at where the 13 pit is that you just talked about in the 1945 14 ground photo? Is that marked in this image?</p> <p>15 A The pit is delineated. It's not labeled 16 as a -- they didn't mention what it was. It's 17 just -- they've got the actual thing circled, or 18 mapped, but it's not labeled.</p> <p>19 Q So it's not labeled anything in this 20 Sanborn map?</p> <p>21 A Right. I mean, Sanborn maps are for 22 fire, but they happened to mark that one</p>
<p style="text-align: right;">Page 151</p> <p>1 it's got petroleum product in it. I would also 2 say that there was probably some precipitation 3 gathered in that area too. It's not just water. 4 I'd say that's very, very unlikely.</p> <p>5 Q Are there any other significant 6 environmental features in this photo?</p> <p>7 A I think we covered them with the tanks 8 and the pit area. That's it.</p> <p>9 MR. PETIT: Randy, can you move your 10 video camera? I just see the top of your -- there 11 you go.</p> <p>12 Sydney, what page was that? I'm sorry.</p> <p>13 MS. MENEES: This page is 65.</p> <p>14 BY MS. MENEES:</p> <p>15 Q I'd like to skip ahead a little bit to --</p> <p>16 MR. HAMBRICK: Do you want to mark this 17 as an exhibit?</p> <p>18 MS. MENEES: Oh, yes, please, Danny. 19 Mark that as an exhibit.</p> <p>20 MR. HAMBRICK: This is going to be 21 Exhibit 9.</p> <p>22 (Deposition Exhibit Number 9 was marked</p>	<p style="text-align: right;">Page 153</p> <p>1 particular area that I can clearly see in the 2 photography as well.</p> <p>3 Q And then do you see the box in the upper 4 right-hand corner that says crude oil?</p> <p>5 A Okay. Yes.</p> <p>6 Q The tanks in the ground photograph have 7 what you labeled as dark liquid on the top. Do 8 you recall that?</p> <p>9 A Yes.</p> <p>10 Q And the tanks that had that dark liquid 11 on them are crude oil tanks. Do you see that?</p> <p>12 A Some of them are crude oil. I think I 13 saw some across the rail spur as well, but I 14 couldn't tell you which one was leaking.</p> <p>15 Q So if this Sanborn map labels those tanks 16 as being crude oil tanks and those same tanks have 17 dark liquid on them, would you say it's more 18 likely than not that's crude oil?</p> <p>19 A Well, as I said, when I was going over 20 it, I don't know if they changed what the oil is 21 in those areas, so I don't know how much they 22 focused on the Sanborn mapping to label those</p>

<p style="text-align: right;">Page 154</p> <p>1 features. But, I mean, it could be crude oil 2 based on that map. I don't know if they changed 3 it or what. 4 Q So are you disputing the accuracy of the 5 Sanborn map? 6 A I'm not testifying to the accuracy of the 7 Sanborn. It's just a common map that shows names 8 of features. At one point I believe that they 9 believed that was crude oil. But, I mean, if 10 someone comes back and has records from this 11 facility that disagree with the Sanborn, I would 12 say the facility knows better what's in those 13 tanks than the Sanborn company. 14 Q But you used the Sanborn maps to verify 15 different features at the sites, correct? 16 A Names of features. I -- I got that from 17 Sanborns, and it confirmed what I was seeing in 18 the imagery is there. I mean, the Sanborn could 19 confirm that there were tanks up there, certainly, 20 but that's an obvious feature. 21 If the Sanborn includes something, that 22 doesn't mean that it's not [sic] there. And</p>	<p style="text-align: right;">Page 156</p> <p>1 surface on the ground, I believe. This is kind of 2 from memory. There may have been a rainfall 3 event, but I didn't note specific pits or anything 4 like that on this date. 5 Q And just going back quickly to the 1945 6 image before it, how did you determine the date of 7 this photo? 8 A It was either the name of the file or -- 9 we'll often have the scan of the back of the 10 photograph. But I don't remember what this one is 11 in particular. 12 Q And you don't have any more information 13 about when in 1945 this may have been taken? 14 A No. 15 Q Okay. Let's go to page 67. So you noted 16 dark liquid on the side of the tanks here. Do you 17 know what that is? 18 MR. PETIT: Sydney, is that 67 or 68? 67 19 should be the Sanborn map in his report. 20 MS. MENEES: Okay. Then it's 68. 21 BY MS. MENEES: 22 Q Do you know what the dark liquid is in</p>
<p style="text-align: right;">Page 155</p> <p>1 sometimes, you know, the dates aren't that 2 accurate. It just depends on the mapper for the 3 Sanborn company in that area. I've seen it when 4 the maps are very accurate. I've seen it when 5 they're just -- the dates are estimates. 6 Q Okay. Let's go back to Exhibit 1 and 7 image page 65. 8 MR. PETIT: Sydney, are you introducing 9 that Sanborn? 10 MR. HAMBRICK: This is going to be 11 Exhibit 10. 12 MS. MENEES: Oh, yes, that's Exhibit 10. 13 Sorry. 14 (Deposition Exhibit Number 10 was marked 15 for identification.) 16 BY MS. MENEES: 17 Q So going to -- can we zoom in on page 65 18 alone. 19 Did you note any -- you didn't note any 20 significant environmental features in this photo, 21 right? 22 A I didn't note them. There's a wet</p>	<p style="text-align: right;">Page 157</p> <p>1 this photo? 2 A It's obviously a spill feature. I would 3 say it's some type of petroleum. 4 Q Is the pit that you labeled in the 5 previous train car image in this image as well? 6 A I don't believe it is. I don't remember 7 the direction that this photograph was taken, but 8 it may be just a different area. 9 Q Is there -- are there any other 10 significant environmental features in this photo? 11 A Not that I've labeled or can recall. 12 Q And nothing new that you see now? 13 A No. 14 Q Let's go to the next image. Actually, go 15 back to the previous image. So you have the 16 direction noted in the lower -- in the bottom part 17 of the image. 18 A Okay. 19 Q And going back a few pages to the train 20 car image, that arrow is in the same direction, 21 correct? 22 A It looks to be, yes.</p>

<p style="text-align: right;">Page 158</p> <p>1 Q So these two photos were taken in the</p> <p>2 same direction, both with train cars, right?</p> <p>3 A Yes. The position that they were taken</p> <p>4 is not that clear. They're not from the same</p> <p>5 position. So I don't know if the tank would be in</p> <p>6 the fore- -- or the pit would be in the foreground</p> <p>7 of the next photograph anyway. They can't see the</p> <p>8 tanks that are to the left on that other</p> <p>9 photograph.</p> <p>10 Q Right. Going back to the other</p> <p>11 photograph, you can see there -- well, this</p> <p>12 photograph has a ladder in the -- or what looks to</p> <p>13 be some sort of ladder in the left-hand side. And</p> <p>14 the subsequent photo also has a ladder-looking</p> <p>15 feature in the left-hand side. Do you see that?</p> <p>16 A Show me the other photograph. Well, I</p> <p>17 see a ladder. I don't know if that's the same</p> <p>18 ladder, but I don't see -- I see one tank well</p> <p>19 down the line on the left side. I don't see any</p> <p>20 of the other tanks. So I can't tell where that</p> <p>21 photograph is cropped, you know, what -- if I</p> <p>22 would be able to see that pit or not.</p>	<p style="text-align: right;">Page 160</p> <p>1 A Mottled-toned materials, you know,</p> <p>2 different tones, different changing -- obviously</p> <p>3 changing type materials. And also you have to</p> <p>4 look at the context: What would be the reason to</p> <p>5 bring dirt into that area? There's no --</p> <p>6 THE REPORTER: What would be the reason</p> <p>7 to...</p> <p>8 THE WITNESS: Just bring regular dirt in</p> <p>9 that area. There's no reason for that. But it's</p> <p>10 a classic landfill-type operation.</p> <p>11 BY MS. MENEES:</p> <p>12 Q If this -- if what you labeled</p> <p>13 landfilling was to control flooding, how would it</p> <p>14 look different?</p> <p>15 A Well, it would have to go around the</p> <p>16 river. They would have to berm off the entire</p> <p>17 river or the creek up there to the north to have</p> <p>18 any effect on flooding control, because the area</p> <p>19 to the east of that fill area is low, so that</p> <p>20 entire area would have to be filled to do any kind</p> <p>21 of control of flooding with respect to the</p> <p>22 refinery.</p>
<p style="text-align: right;">Page 159</p> <p>1 Q Okay. Let's move to the next image. You</p> <p>2 noted landfilling in this photo. How could you</p> <p>3 tell it was landfilling?</p> <p>4 A Well, I can see -- first of all, the</p> <p>5 signature of disturbance, I can obviously see an</p> <p>6 elevation change in that area. It's a very</p> <p>7 classic disposal feature. I map landfills all the</p> <p>8 time, and it's exactly what they look like.</p> <p>9 Q You mentioned that landfills aren't</p> <p>10 always for disposal. Is there a characteristic of</p> <p>11 landfills that would indicate this one was for</p> <p>12 disposal?</p> <p>13 A Well, I would typically call it just</p> <p>14 filling. That would be filling for construction</p> <p>15 or raising up the elevation for development in a</p> <p>16 flood area or in a low lying area. But this is --</p> <p>17 obviously, there's multi-tone materials going in</p> <p>18 there. And in other dates it's higher resolution;</p> <p>19 you can definitely see some signatures of disposal</p> <p>20 in that area.</p> <p>21 Q And the signatures of disposal</p> <p>22 specifically are what?</p>	<p style="text-align: right;">Page 161</p> <p>1 Plus, down further to the south, there's</p> <p>2 an actual berm that's been constructed that does</p> <p>3 that on its own. But I would say the berm is more</p> <p>4 to control an outfall rather than to keep water</p> <p>5 from coming into the refinery. It's keeping water</p> <p>6 and waste from going into the river.</p> <p>7 Q How certain are you this is for disposal</p> <p>8 and not for another purpose?</p> <p>9 A I'm very certain, more likely than not.</p> <p>10 If you sample it, I would almost guarantee you</p> <p>11 you're going to find contamination in that area.</p> <p>12 Q What do you mean by circular</p> <p>13 feature/possible flare?</p> <p>14 A Well, it's -- as I said before, a burn</p> <p>15 pit is a circular-type feature. This image is</p> <p>16 medium to low resolution. I can detect a circular</p> <p>17 feature. You know, I think it's either a burn pit</p> <p>18 or some kind of activity in that area. So I was</p> <p>19 trying to narrow it down. It's set aside from</p> <p>20 just landfilling activities.</p> <p>21 Q So you didn't label this a burn pit, but</p> <p>22 it could be; is that right?</p>

<p style="text-align: right;">Page 162</p> <p>1 A Yes. And if there's other information</p> <p>2 that sheds more light on it, it would raise my</p> <p>3 confidence to that area. But the entire area</p> <p>4 looks like a disposal-type area.</p> <p>5 Q What about the liquid that you noted in</p> <p>6 this image? Can you tell where that's coming</p> <p>7 from?</p> <p>8 A Well, it's a combination of sources. I</p> <p>9 mean, it would -- the berm would stop liquid from</p> <p>10 flowing to the north. So runoff from</p> <p>11 precipitation. There looks to be filling or</p> <p>12 storage in the white-toned area south of that</p> <p>13 liquid. So, you know, if there's runoff from any</p> <p>14 kind of contaminated materials, it would capture</p> <p>15 that in that area.</p> <p>16 But it's definitely -- the berming</p> <p>17 activity by the refinery has captured that liquid,</p> <p>18 and I would say that's a good source for</p> <p>19 contamination in that area.</p> <p>20 Q So you think the liquid is contaminated</p> <p>21 liquid?</p> <p>22 A Well, I'd say -- I'd say that's a good</p>	<p style="text-align: right;">Page 164</p> <p>1 to be an area where there may be some flow. So</p> <p>2 that's why I pointed that area out.</p> <p>3 Q But you're not sure?</p> <p>4 A Well, I saw drainage in that area, but</p> <p>5 it's not that clear on this date, so I'm not</p> <p>6 certain.</p> <p>7 Q Okay. Let's move to the next image.</p> <p>8 MR. PETIT: Sydney, before you move on,</p> <p>9 can you tell me what page that is? I think I</p> <p>10 might be off on naming these pages. I had 69 on</p> <p>11 that page from May 20th, 1953.</p> <p>12 MS. MENEES: Let me see. I've been</p> <p>13 telling you --</p> <p>14 MR. HAMBRICK: It's actually right up</p> <p>15 here in the top left-hand corner.</p> <p>16 MR. PETIT: And then if you're smart like</p> <p>17 Danny...</p> <p>18 Okay.</p> <p>19 MS. MENEES: That's why he's here.</p> <p>20 BY MS. MENEES:</p> <p>21 Q Excellent. Okay. So we can move to the</p> <p>22 next photo now?</p>
<p style="text-align: right;">Page 163</p> <p>1 place -- a potential contamination source or spot</p> <p>2 to find contamination is right there.</p> <p>3 Q Okay. But you didn't label it</p> <p>4 contamination in your report. Is there a reason</p> <p>5 for that?</p> <p>6 A Well, I point out the liquid. It's a</p> <p>7 potential contamination source. But as I said</p> <p>8 before, I don't see contamination. I can see</p> <p>9 where I would expect to find it and what sources I</p> <p>10 would expect to contribute to the contamination.</p> <p>11 Q So all you see is liquid, and you can't</p> <p>12 tell what that liquid is or whether it's</p> <p>13 contaminated?</p> <p>14 A I can't see the contamination and I could</p> <p>15 just tell you it's a darker-toned liquid.</p> <p>16 Q Okay. What about the possible drainage</p> <p>17 that you noted in this image. Are you not sure</p> <p>18 about whether that's drainage?</p> <p>19 A Well, I see drainage pathways. I believe</p> <p>20 it was in earlier dates in there. But this is a</p> <p>21 fairly low -- like I said, medium to low</p> <p>22 resolution date. So it's not clear. It appears</p>	<p style="text-align: right;">Page 165</p> <p>1 MR. PETIT: Does that D01068 show up on</p> <p>2 the actual exhibits? It does not, does it?</p> <p>3 THE WITNESS: Yes, it does.</p> <p>4 MR. HAMBRICK: Well, it shows on the</p> <p>5 annotated versions of the exhibit -- that number</p> <p>6 on there. But the actual Exhibit 1 does not have</p> <p>7 these numbers. But this number, this number 68,</p> <p>8 lines up with the page number of the PDF itself.</p> <p>9 MS. MENEES: Okay. Are we ready to move</p> <p>10 on?</p> <p>11 MR. PETIT: I am. Sorry for that.</p> <p>12 MS. MENEES: That's okay.</p> <p>13 BY MS. MENEES:</p> <p>14 Q So in this image, the April 5th, 1954</p> <p>15 aerial, I guess, what are the -- do you see the</p> <p>16 landfilling in this image? Does that clarify</p> <p>17 anything about -- sorry, strike that.</p> <p>18 What can you tell me about the</p> <p>19 landfilling in this image as compared to the</p> <p>20 previous one?</p> <p>21 A Well, it's still there. I don't know</p> <p>22 that I -- I'd have to put both dates together to</p>

<p style="text-align: right;">Page 166</p> <p>1 tell you if it's the -- if the fill has progressed</p> <p>2 in a bigger area. But it's clearly the classic</p> <p>3 signatures of the landfill were vehicles drive in,</p> <p>4 they find a spot to dump whatever they have, they</p> <p>5 dump it out and they continue back around and out.</p> <p>6 There's also a couple of features -- like</p> <p>7 I mentioned that circular feature/possible flare</p> <p>8 is still visible.</p> <p>9 And there's some more disturbance further</p> <p>10 to the east there, light tone. But it's obviously</p> <p>11 not just fill for development. And you can</p> <p>12 actually see, as you go to the right on your</p> <p>13 image, that -- you know, that's low-lying land in</p> <p>14 the trees.</p> <p>15 Q So this landfilling, what features about</p> <p>16 it are consistent with it being for disposal?</p> <p>17 A Well, it's, again, mottled-toned</p> <p>18 material. It doesn't look like just the standard</p> <p>19 drilling for redevelopment, which you'll see in</p> <p>20 another site here. Mottled tone, it looks like a</p> <p>21 municipal landfill. People drive up, dump</p> <p>22 material and drive off.</p>	<p style="text-align: right;">Page 168</p> <p>1 but nothing else, no other leaks?</p> <p>2 A I mean, these are snapshots in time. I'm</p> <p>3 not going to see every leak that's out there, or</p> <p>4 every spill. This is just what I was able to see</p> <p>5 on those particular photographs.</p> <p>6 Q Okay. Did you identify any spills at the</p> <p>7 Midwest refinery?</p> <p>8 A Well, again, by -- by saying spill, I</p> <p>9 would say those features -- maybe I would call</p> <p>10 those spills out of the tanks. I'm not sure</p> <p>11 whether they were filling it or what they were</p> <p>12 doing, but I definitely see material running down</p> <p>13 the sides of those tanks. Also, the presence of</p> <p>14 that pit would indicate that could possibly be</p> <p>15 associated with spills as well.</p> <p>16 Q It could possibly be associated with</p> <p>17 spills, but you didn't see anything specifically</p> <p>18 to indicate that it was for spills?</p> <p>19 A No. But I mean, pit areas are to handle</p> <p>20 either waste materials or -- when they clean up</p> <p>21 spills or when they clean out the tanks, the tank</p> <p>22 bottoms. So that feature is a disposal-type</p>
<p style="text-align: right;">Page 167</p> <p>1 Q And then you noted liquid in the same</p> <p>2 place as the 1953 photo, the same possible</p> <p>3 drainage notation, as well as the berm visible.</p> <p>4 One new feature I see in this image is liquid. Is</p> <p>5 there anything more that you can tell me about</p> <p>6 that liquid?</p> <p>7 A Just the proximity to the tanks to the</p> <p>8 south. But it's definitely holding liquid there.</p> <p>9 It's lighter in tone than the area to -- to the</p> <p>10 left of the image.</p> <p>11 Q Okay. And then -- so these are all the</p> <p>12 images you had for the Midwest refinery. Did you</p> <p>13 identify any leaks at the Midwest refinery?</p> <p>14 A Well, yeah, I saw the tank leaks. I've</p> <p>15 annotated that on the oblique photographs.</p> <p>16 Q So it was just the dark tops of the</p> <p>17 tanks?</p> <p>18 A Well, it runs down to the ground. I saw</p> <p>19 that, you know. I can't see the ground surface,</p> <p>20 but I see evidence of a spill or a leak out of</p> <p>21 those tanks on those dates.</p> <p>22 Q Okay. So you saw the leaks on the tanks,</p>	<p style="text-align: right;">Page 169</p> <p>1 feature that I've seen.</p> <p>2 Q Did you identify any releases at the</p> <p>3 Midwest refinery besides those -- I guess -- I</p> <p>4 understand your position on the side of the tanks,</p> <p>5 that there's leakage, but aside from that?</p> <p>6 MR. PETIT: And I'm going to object to</p> <p>7 the extent it calls for a conclusion of law.</p> <p>8 THE WITNESS: Well, I can't see below the</p> <p>9 ground surface, but, I mean, I don't know what</p> <p>10 would happen to contaminants in these areas. You</p> <p>11 know, I can't see that they're moving, but if</p> <p>12 they, you know -- I can't see what's below the</p> <p>13 surface. I can't rule out that there would be a</p> <p>14 release from those pits or the bermed area that</p> <p>15 contains the liquid either.</p> <p>16 BY MS. MENEES:</p> <p>17 Q But you didn't specifically see a</p> <p>18 release?</p> <p>19 A Well, there are snapshots in time. I see</p> <p>20 features that are associated with handling those</p> <p>21 releases and trying to keep them from running out</p> <p>22 into the environment. That's what I think this</p>

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<p>1 berm was put there for, is to keep the runoff from</p> <p>2 precipitation on the plant that contains</p> <p>3 material -- you know, petroleum-related material</p> <p>4 that's washed off the site, there's an effort to</p> <p>5 capture it.</p> <p>6 So I would say those areas -- I would</p> <p>7 look in those areas for contamination. And in</p> <p>8 prior years, I would look up into the river area</p> <p>9 for release as well. Those are very --</p> <p>10 Q But I asked you whether you actually saw</p> <p>11 a release, not whether there was features</p> <p>12 consistent with that in your opinion.</p> <p>13 A I don't see a spill that's active.</p> <p>14 Again, this is a photograph. I don't see a</p> <p>15 ruptured tank or anything like that active. I see</p> <p>16 evidence that that could have happened.</p> <p>17 Q Okay. What about -- do you see any</p> <p>18 evidence of waste removal?</p> <p>19 A Well, the pits, I would say that's</p> <p>20 evidence that they were handling waste.</p> <p>21 Removal -- removing from one part of the site to</p> <p>22 another, you know, in the landfilling is</p>	<p>1 that's some type of petroleum waste or spill that</p> <p>2 they've captured and moved into those pits for</p> <p>3 disposal.</p> <p>4 Q So it looks like there's a set of pits in</p> <p>5 the middle of the image and then there's a set of</p> <p>6 pits in the upper right-hand corner of the image.</p> <p>7 The pits in the upper right-hand corner are a</p> <p>8 little bit more difficult to see. Can you tell</p> <p>9 how many pits are there?</p> <p>10 A Well, I marked it with arrows, so I would</p> <p>11 have to say one, two, three, four, five -- I could</p> <p>12 look in stereo and give you a confirmed count, but</p> <p>13 it looks like five pits in that area.</p> <p>14 Q And what about the dark area surrounding</p> <p>15 those pits in the upper right-hand corner? What</p> <p>16 do you think that is?</p> <p>17 A I have to say it's some type of spill or</p> <p>18 overflow of those pits, you know. I think it's a</p> <p>19 dark-in-tone, likely petroleum product or waste</p> <p>20 product.</p> <p>21 Q Can you tell whether the pits are lined?</p> <p>22 A I can't see the surface, but, I mean, in</p>
Page 171	Page 173
<p>1 definitely something I would look at. Like, I</p> <p>2 don't know if they were moving materials out</p> <p>3 there, but the pit that I've identified in the</p> <p>4 liquid area that was burned off I would say is a</p> <p>5 good place to look for materials that have been</p> <p>6 moved.</p> <p>7 Q It's a good place to look for it, but you</p> <p>8 couldn't actually see anything that was being</p> <p>9 removed into -- as waste. Okay.</p> <p>10 A I don't see active digging or anything</p> <p>11 like that. I mean, I see changes on the</p> <p>12 photographs, but it's not a film. I mean, I can't</p> <p>13 see that type of activity on this photograph.</p> <p>14 Q Okay. Let's move to the next refinery.</p> <p>15 And I'd like to go to page 73, I want to say.</p> <p>16 Okay. So this photograph is dated April 15th,</p> <p>17 1940. It's an aerial photograph of Ardmore. And</p> <p>18 so you see some pits in this photo. Can you tell</p> <p>19 what is in the pits, if anything?</p> <p>20 A Well, I could tell you it's dark. It's</p> <p>21 around a petroleum refinery. And it's a</p> <p>22 disposal-type activity. So I'd have to say that</p>	<p>1 1940, I'd say probably unusual for them to be</p> <p>2 lined. That wasn't something that was done back</p> <p>3 then. I mean, today, I would say they would</p> <p>4 likely be lined, but common practice --</p> <p>5 Q Can you tell --</p> <p>6 THE REPORTER: Common practice...</p> <p>7 THE WITNESS: I would say they're not</p> <p>8 lined, in my opinion.</p> <p>9 BY MS. MENEES:</p> <p>10 Q Can you tell what the pits are</p> <p>11 constructed out of?</p> <p>12 A They look to be dug into the surface with</p> <p>13 the berms pushed up. It's something that you see</p> <p>14 in oil fields and refineries and in other chemical</p> <p>15 facilities. So I'd say it's dirt.</p> <p>16 Q And the dark liquid in this photo, can</p> <p>17 you tell what that is?</p> <p>18 A All the dark liquid? I'd say it's some</p> <p>19 type of release or waste product from the</p> <p>20 refinery.</p> <p>21 Q You would guess that or you know that?</p> <p>22 A Well, it's -- it's my opinion that that's</p>

<p style="text-align: right;">Page 174</p> <p>1 what that is. We've got pits that are obvious 2 disposal-type features. I mean, that's -- in this 3 line of work, it's common sense. They don't make 4 a pit just for it to be there. Especially these 5 are very dark in tone. 6 And you see in the reservoir there, the 7 pits to the south of that reservoir are 8 topographically higher than the reservoir to the 9 north there. So any release or leakage or 10 anything like that would go down into that 11 reservoir. 12 And as I see those dark liquid surfaces, 13 you could detect a movement between the two 14 photographs. It looks like a slick that's been 15 pushed up against that side. So some type of 16 lighter liquid flooding on that surface. 17 Q What do you think the dark surface along 18 the spur is? 19 A Well, it could be spills from loading the 20 tanks or it could be dust suppression where they 21 put some liquid possibly under the surface -- 22 THE REPORTER: I'm sorry. Dust</p>	<p style="text-align: right;">Page 176</p> <p>1 capture liquid. So maybe that's some way of 2 separating oil from water in that area. But 3 there's obviously some effort to control the 4 drainage there. 5 BY MS. MENEES: 6 Q Could you elaborate a little bit on how 7 you're seeing the containment? 8 A Containment? Well -- 9 Q You were saying that there's some effort 10 to control drainage. So how are you seeing that? 11 A I see the drainage pathway where it cuts 12 through the ground surface where the natural 13 drainage flows. Then I see lines that appear to 14 block that drainage, like they were put there like 15 some kind of secondary dam to control flow through 16 that area. So if there's a release from that 17 second reservoir, it would be captured by those 18 blocked areas. That's why there's that dark 19 liquid in that area. 20 Q Okay. Moving to the next image -- I 21 don't think there's anything in this one. 22 Let's go to the next image. This one is</p>
<p style="text-align: right;">Page 175</p> <p>1 suppression where they put some liquid possibly 2 under the... 3 THE WITNESS: Spill. And it's noticeably 4 darker than the other areas, say, for the pits. 5 The pits are also very dark. 6 BY MS. MENEES: 7 Q Okay. Are there any other significant 8 environmental features that you saw in this photo 9 or that you see now? 10 A Well, it's marked out on the photograph. 11 You know, we didn't discuss the dark liquid to the 12 right of the reservoir, but I saw that as well. 13 Q And do you have any opinions as to what 14 that dark liquid is to the right of the reservoir? 15 A I know that I could see an effort to 16 control drainage in those areas. So they created 17 these reservoirs by damming up -- 18 THE REPORTER: I'm sorry. They created 19 these reservoirs by... 20 THE WITNESS: Damming up natural 21 drainage. And even further to the right from that 22 second reservoir I see blockage of the drainage to</p>	<p style="text-align: right;">Page 177</p> <p>1 a little bit small, but it doesn't look like you 2 marked anything in this Sanborn map besides the 3 reservoir. Did you use this Sanborn map from 4 July 1948 for any other purpose? 5 A Not that I recall. I just wanted to 6 include it in my report. 7 Q Okay. Let's go to the next image. So 8 this is labeled May 22, 1949, Ardmore, Oklahoma. 9 You've labeled a number of different features in 10 this photo, including pits. So I guess, how are 11 the pits in this image different from the 1940 12 image? 13 A Well, they've filled some of the 14 previously seen pits between the two dates, and 15 they've opened new pits in the area, and that's 16 including the area along the rail and the rail 17 spur, and in the area to the south next to the 18 tanks, there's new pits in that area as well. 19 So there's definitely been some change 20 between the two dates. 21 Q Can you tell what is in the pits? 22 A You know, I can tell it's a very</p>

<p style="text-align: right;">Page 178</p> <p>1 dark-toned surface and, being associated with a</p> <p>2 refinery, I'd say it's likely some type of</p> <p>3 oil-laced or oil product of some kind.</p> <p>4 Q And can you tell, looking at this image,</p> <p>5 whether the pits are lined?</p> <p>6 A I'd say -- in '49, I would say it would</p> <p>7 be unusual. I would say they're likely unlined,</p> <p>8 but I cannot see the surface to really tell.</p> <p>9 Q Can you tell whether there are any</p> <p>10 oil-water separators in this image?</p> <p>11 A Not the -- not a rectangular-type</p> <p>12 separator feature, but it's possible that what</p> <p>13 we're seeing with these reservoirs could be some</p> <p>14 type of a -- kind of an earthen-type separator.</p> <p>15 That's a possibility. But that's for someone else</p> <p>16 to look at.</p> <p>17 Q So you don't see any oil-water separators</p> <p>18 in this image?</p> <p>19 A Well, not a specific rectangular</p> <p>20 constructed separator, but I see features that</p> <p>21 could be interpreted as something where they were</p> <p>22 separating oil from water. I mean, they could be</p>	<p style="text-align: right;">Page 180</p> <p>1 between those two things?</p> <p>2 A Well, a landfill to fill a pit -- it's</p> <p>3 already a disposal-type area. And from what I</p> <p>4 understand on these operations, there's already</p> <p>5 contamination there. Sometimes they'll put other</p> <p>6 contaminants in there to fill it, or other</p> <p>7 contaminated soil or what have you.</p> <p>8 The landfill -- a new landfill just for</p> <p>9 disposal --</p> <p>10 THE REPORTER: I'm sorry. A new</p> <p>11 landfill...</p> <p>12 THE WITNESS: Right, that's in area that</p> <p>13 hadn't previously been used for disposal, I don't</p> <p>14 necessarily see that on this site, but I did on</p> <p>15 the previous Alma -- I think it's Midwest site.</p> <p>16 BY MS. MENEES:</p> <p>17 Q So you said you didn't see any landfills</p> <p>18 that were specifically for -- sorry. Could you</p> <p>19 just repeat what you said before?</p> <p>20 MS. MENEES: Or could you -- Denise,</p> <p>21 could you read that back?</p> <p>22 (The reporter read the record as</p>
<p style="text-align: right;">Page 179</p> <p>1 recovering it from that smaller reservoir right in</p> <p>2 the center of the site. That could be how they're</p> <p>3 recovering -- or separating water and oil there.</p> <p>4 Q Do you see any evidence of landfilling in</p> <p>5 this image?</p> <p>6 A Yes. When you compare the previous date</p> <p>7 to this date, those pits have been -- there are</p> <p>8 several pits that have been filled.</p> <p>9 Q Can you see the actual landfilling?</p> <p>10 A Well, I can see on an earlier date it's</p> <p>11 an open pit, and then a later date it's filled and</p> <p>12 covered. So in that way, I see it. I don't see</p> <p>13 them pushing it right at the moment of that</p> <p>14 photograph, though.</p> <p>15 Q Did you label the pits that you saw that</p> <p>16 were filled in this image?</p> <p>17 A There's some -- I don't know that I</p> <p>18 marked the ones that are filled, no. You'd have</p> <p>19 to flicker back and forth between the photographs</p> <p>20 to see it.</p> <p>21 Q So in terms of a disposal landfill and a</p> <p>22 landfill to fill a pit, is there a difference</p>	<p style="text-align: right;">Page 181</p> <p>1 requested.)</p> <p>2 MS. MENEES: Okay. Thanks.</p> <p>3 BY MS. MENEES:</p> <p>4 Q Okay. Let's -- is there anything else in</p> <p>5 this photograph that is a significant</p> <p>6 environmental feature that we haven't discussed?</p> <p>7 Oh, sorry. One thing. What is a catch basin?</p> <p>8 A Oh. It would -- it's a feature that</p> <p>9 controls flow of water or -- like -- I can't</p> <p>10 really recall what this particular point was, but</p> <p>11 it may have been a feature that we see that</p> <p>12 captures water and directs the flow in a</p> <p>13 particular direction.</p> <p>14 Q And how did you label this as a catch</p> <p>15 basin?</p> <p>16 A Well, somehow it's associated with</p> <p>17 drainage, and I marked that. I didn't know if</p> <p>18 that had some significance, but that's something I</p> <p>19 had noted that was a change.</p> <p>20 Q Did you -- is there anything else that --</p> <p>21 any other significant environmental features that</p> <p>22 we haven't discussed in this image that you</p>

<p style="text-align: right;">Page 182</p> <p>1 labeled or saw?</p> <p>2 A I mean, let's see. There's some dark</p> <p>3 areas that we pointed out to the north of the</p> <p>4 reservoirs within the -- I guess that's the tank</p> <p>5 farm area. It's a dark area. I don't see it as</p> <p>6 an obvious pit, but the surface is darker than</p> <p>7 just the ground around the site and off site</p> <p>8 around it.</p> <p>9 Q Okay. Anything else?</p> <p>10 A No. I think that covers it.</p> <p>11 Q Let's move to the next photo. You noted</p> <p>12 some pits in this photo. Are these the same pits</p> <p>13 that were in the previous photo?</p> <p>14 A I don't recall if there's a change</p> <p>15 between those two dates. There may have been some</p> <p>16 change, but I'd have to have some control and</p> <p>17 flicker back and forth to see. There may be some</p> <p>18 change in there. They're definitely still open</p> <p>19 and active.</p> <p>20 Q And you noted dark liquid in the two</p> <p>21 reservoirs in the middle. Is there any change</p> <p>22 with that liquid that you can tell?</p>	<p style="text-align: right;">Page 184</p> <p>1 A I see a signature that's darker than what</p> <p>2 you would expect and darker than I could see along</p> <p>3 the rail line. So that's possible leakage there.</p> <p>4 Q Could we go to page 74 of this exhibit.</p> <p>5 73, sorry. So when you say there's a signature of</p> <p>6 leakage, it's the dark surface along the spur</p> <p>7 there?</p> <p>8 A Right.</p> <p>9 Q In the 1940 image?</p> <p>10 A That's correct.</p> <p>11 Q Okay. Did you identify any spills at the</p> <p>12 Ardmore refinery?</p> <p>13 A I didn't see a current spill. I mean, I</p> <p>14 guess you could say -- I don't know where the</p> <p>15 source of this liquid and -- this dark liquid in</p> <p>16 the reservoir is, if it was -- if it leaked there</p> <p>17 from the pits or if there was a spill associated</p> <p>18 with the pits or what, but there's definitely dark</p> <p>19 liquid in the reservoir that doesn't look like a</p> <p>20 typical pit-type feature. So that could be a</p> <p>21 spill or a leak as well.</p> <p>22 Q It could be a spill, but you don't know</p>
<p style="text-align: right;">Page 183</p> <p>1 A No, just that the darkness is similar to</p> <p>2 what you see in the pits to the north --</p> <p>3 northeast. And I don't believe I had seen on</p> <p>4 previous dates, the '54 -- let's see -- dark</p> <p>5 liquid in that northern -- I'm sorry, the western</p> <p>6 reservoir.</p> <p>7 Q So that dark liquid is new?</p> <p>8 A Yes, I did not see that on the previous</p> <p>9 date, I don't believe.</p> <p>10 Q So those were all of the images for</p> <p>11 Ardmore. Did you identify any leaks at the</p> <p>12 Ardmore refinery?</p> <p>13 A No. I see the pits that would handle</p> <p>14 leaks. I guess you could say that, along that</p> <p>15 rail spur, that would be a potential leakage, but</p> <p>16 I can't differentiate between oiling activities</p> <p>17 there. It's definitely a dark surface, so --</p> <p>18 THE REPORTER: But I can't differentiate</p> <p>19 between what kind of activities there?</p> <p>20 THE WITNESS: Oiling activities.</p> <p>21 BY MS. MENEES:</p> <p>22 Q So along the rail spur, you saw a leak?</p>	<p style="text-align: right;">Page 185</p> <p>1 whether it's actually a spill?</p> <p>2 A I just see floating dark liquid in the</p> <p>3 reservoir. So I don't see it actively spilled,</p> <p>4 but it's definitely gotten there somehow.</p> <p>5 Q How certain are you that it's a spill?</p> <p>6 A You know, I'd need other information to</p> <p>7 help me understand how the liquid got there. I</p> <p>8 don't see the pathway, but I can tell you the</p> <p>9 topography of the pits to the south of that is</p> <p>10 higher, and if there were an overflow from those</p> <p>11 pits, it would go down into the reservoir. But I</p> <p>12 don't see it. I mean, I'd say it's a possible</p> <p>13 source. I can't see it as it's active.</p> <p>14 Q What about any waste removal activities?</p> <p>15 Do you see that at the Ardmore refinery?</p> <p>16 A Well, the removal activities would be</p> <p>17 removing waste and placing it in those</p> <p>18 disposal-type pits. So that would be a removal</p> <p>19 action.</p> <p>20 Q But you just saw the pits, right? You</p> <p>21 didn't see any activity associated with removing</p> <p>22 anything?</p>

<p style="text-align: right;">Page 186</p> <p>1 A I don't see them digging. I didn't catch</p> <p>2 them clearing out tank bottoms or anything like</p> <p>3 that in this snapshot, no.</p> <p>4 Q What about environmental contamination?</p> <p>5 Did you see that at the Ardmore refinery?</p> <p>6 A Well, I never see actual contamination.</p> <p>7 I see contamination sources. And I see these pits</p> <p>8 and, you know, the likelihood of them being lined</p> <p>9 I think is low in this time period. So I'd say</p> <p>10 that's a contamination source.</p> <p>11 But I never see contamination. I see the</p> <p>12 sources.</p> <p>13 Q Did you see any images of Ardmore</p> <p>14 refinery definitely taken between December 1941</p> <p>15 and 1949?</p> <p>16 A I'd have to look at my listing again. If</p> <p>17 it's in the listing, then I saw it. But I don't</p> <p>18 have these dates memorized. It included</p> <p>19 everything --</p> <p>20 Q None of the photos that you have in your</p> <p>21 report are from that time period.</p> <p>22 A Okay. Well, then, what I can see is</p>	<p style="text-align: right;">Page 188</p> <p>1 difficult for me to see what pages are on here.</p> <p>2 Let's go to 81. Here we go. Okay. So this photo</p> <p>3 is labeled February 1937, Arkansas City, Kansas,</p> <p>4 correct?</p> <p>5 A Correct.</p> <p>6 Q And you've labeled a number of features</p> <p>7 on this image, including disposal area, dark</p> <p>8 liquid, pits and bermed area. Is there anything</p> <p>9 that I missed on here?</p> <p>10 A Well, the spray ponds from the Sanborns.</p> <p>11 There's a couple --</p> <p>12 Q Do you consider those significant</p> <p>13 environmental features?</p> <p>14 A They are a pit. I don't know what the</p> <p>15 environmental significance is, but in this case,</p> <p>16 there could be some type of disposal activity</p> <p>17 associated with it.</p> <p>18 But basically, to call out what that is</p> <p>19 and why it's not labeled as a pit is another</p> <p>20 reason for labeling that as a spray pond.</p> <p>21 Q Okay. So for the pits, you can't tell</p> <p>22 what's in the pits, right?</p>
<p style="text-align: right;">Page 187</p> <p>1 activities before and activities after. So</p> <p>2 changes that I see between those two photographs,</p> <p>3 I can only say they had happened in that time</p> <p>4 period.</p> <p>5 Q The time period between those two</p> <p>6 photographs is -- I mean, there's a time period</p> <p>7 that's much larger than 1941 to 1945 between the</p> <p>8 photos that you have in your report. It would be</p> <p>9 1940 to 1949.</p> <p>10 A Okay. Yes. That's the best I can</p> <p>11 bracket with this coverage just based on the</p> <p>12 aerial photographs.</p> <p>13 Q Okay.</p> <p>14 MS. MENEES: Shall we take another break.</p> <p>15 (Whereupon, a short recess was taken.)</p> <p>16 BY MS. MENEES:</p> <p>17 Q Let's go to page 82 of your expert</p> <p>18 report, Exhibit 1. This is labeled</p> <p>19 February 1931 -- or, sorry, February 1937,</p> <p>20 Arkansas City, Kansas. And you've --</p> <p>21 A The date is 7/10/38.</p> <p>22 Q Oh. Okay. Let's go to -- it's very</p>	<p style="text-align: right;">Page 189</p> <p>1 A Well, I can tell you from -- you know,</p> <p>2 when you have a pit, it's to handle facility waste</p> <p>3 of some kind. So I can't test it from this, but I</p> <p>4 can tell you the tone of it, where it is and what</p> <p>5 type of facility it's in, and my own knowledge</p> <p>6 that whenever they have a pit, it's a</p> <p>7 disposal-type feature.</p> <p>8 Q Okay. And you can't tell whether the pit</p> <p>9 is lined or what it's constructed out of, right?</p> <p>10 A I can't see the liner or anything like --</p> <p>11 actually see it, but I know from common practices</p> <p>12 back in the '30s and '40s, you know, they're not</p> <p>13 lined pits usually.</p> <p>14 Q Okay. And what can you tell me about the</p> <p>15 disposal area that you noted in the lower</p> <p>16 left-hand corner?</p> <p>17 A Well, it's set aside from everything --</p> <p>18 you know, from typical operations in the area.</p> <p>19 It's got features that I thought were</p> <p>20 disposal-type features. I don't recall, as I sit</p> <p>21 here, what it is, if there was some debris or</p> <p>22 something like that, but it's not a clean-looking</p>

<p style="text-align: right;">Page 190</p> <p>1 area in that it looks like they're dumping 2 material or waste in that area. 3 Q Okay. Let's move to the next image. It 4 seems as though many of the features you labeled 5 here are consistent with the 1937 image. This one 6 is labeled 7/10/1938. The disposal area is still 7 there. The dark liquid is still there. Is that 8 right? Can you see all of that? 9 A Yeah. There's a couple -- there's two 10 disposal areas. There's pits. It's only a year 11 difference between the two photographs. So I 12 wouldn't expect a whole lot of change, but if you 13 want me to point out changes, I could maybe do 14 side-by-side. 15 Q I don't think that's necessary for these 16 two photos, but maybe another photo. 17 A I do want to point out that in the center 18 of the site, it's got the pit right in the center. 19 Let's see. How do I say that? There's a label -- 20 three light-toned pits label. 21 THE REPORTER: I'm sorry. Say that 22 again. There's a labeled...</p>	<p style="text-align: right;">Page 192</p> <p>1 tank. Do you know what that dark liquid is? 2 A I can tell you the proximity to the tanks 3 and the topography being down slope from those 4 tanks, I would say that's a possible spill source. 5 Q A possible spill, but you're not sure? 6 A Well, I'm not a hundred percent on that, 7 but if you sampled in that area, that would clear 8 it up. 9 Q What's the difference between an 10 impoundment and a pit? 11 A Well, usually, an impoundment is when 12 they block a drainage-type feature, so there may 13 be an -- already impound drainage. So it's 14 already a low area, and they just block it off 15 from either filling or potentially for, like, a 16 berm too. And then it becomes its own feature 17 that holds liquid or waste. It just depends on 18 the circumstance. 19 Q So how is that different from a pit? 20 A A pit is a constructed feature for, you 21 know, waste handling and waste disposal. An 22 impoundment can be just a drainage pathway that's</p>
<p style="text-align: right;">Page 191</p> <p>1 THE WITNESS: There's three light-toned 2 pits that are labeled in the center of the site. 3 If you look just below the label of the three 4 light-toned pits, there's a small roughly 5 rectangular pit that I've identified. This is 6 very similar to what I saw in the Alma -- I 7 believe it's the Midwest facility north of that 8 rail spur. See, it's kind of set off from the 9 berms of the tank levies. So it's a similar 10 feature across different facilities, but, you 11 know, it's likely used the same way. 12 Q Right. This one is not as close to the 13 spur, though, right? 14 A It's not close to the spur, but, you 15 know, these tanks are not close to the spur. If 16 they were closer to the spur, then it would move 17 that pit closer there. So it's just -- the 18 proximity to the tanks is what's driving the 19 location of that pit. 20 Q I also wanted to point out that you 21 notice -- you noted dark liquid at the bottom of 22 the photograph that looks like it's coming from a</p>	<p style="text-align: right;">Page 193</p> <p>1 blocked and that holds liquid and could later be 2 possibly a contamination source that holds 3 disposal features or -- it's already there. They 4 blocked the drainage, and then it becomes either a 5 pond or a -- or just an enclosed area that has 6 volume. 7 Q You labeled mottled-toned material on 8 this image as well. What is the significance of 9 that? 10 A Well, that just shows that there's been 11 some material brought in on that surface, and it's 12 not just one type of material from one source. 13 It's from a variety of sources. And that quite 14 often is a disposal-type feature as well. 15 Q I believe in a previous image, you called 16 a feature landfilling because it had mottled-toned 17 material. Why didn't you label this as 18 landfilling -- mottled-toned material as 19 landfilling in this image? 20 A Well, by memory, this is just material 21 that's placed on the surface. So it's just staged 22 there. It's just sitting there. If it were a</p>

<p style="text-align: right;">Page 194</p> <p>1 landfilling-type operation, they would put the</p> <p>2 material out there, grade it out and fill-in area</p> <p>3 and raise the elevation of the area.</p> <p>4 In this case, it looks like it's just</p> <p>5 brought to that area. I don't know if that's just</p> <p>6 storage or if that's the ultimate location for</p> <p>7 that material. But it's not an obvious landfill</p> <p>8 on that date.</p> <p>9 Q Does it look like a disposal area?</p> <p>10 A It could be just from the tones, but I</p> <p>11 can't go quite that far to call it a disposal</p> <p>12 area.</p> <p>13 Q Okay. Let's move to the next image.</p> <p>14 This is a Sanborn map dated March 1947. It looks</p> <p>15 like on this map -- it's hard to see; we can pull</p> <p>16 up a higher resolution version -- but there is</p> <p>17 something labeled a sump, but I didn't see that on</p> <p>18 your images that you labeled. Do you remember why</p> <p>19 that is?</p> <p>20 A I don't. Maybe that feature wasn't</p> <p>21 visible on the image. I'd have to look at it</p> <p>22 side-by-side.</p>	<p style="text-align: right;">Page 196</p> <p>1 the site. And then there's obviously a big</p> <p>2 change. They've removed a lot of the tanks to the</p> <p>3 south there.</p> <p>4 But I can give you a better comparison,</p> <p>5 you know, if you just put the two up and I can</p> <p>6 describe what I can see as best I can.</p> <p>7 Q Did the tank removal cause any spillage</p> <p>8 or leakage that you can see?</p> <p>9 A I wouldn't necessarily see it, but, you</p> <p>10 know, if there's material in those tanks, you</p> <p>11 know, when they're taking them down, that could</p> <p>12 be -- it wouldn't be unheard of for there to be a</p> <p>13 spill or release in removing the tanks.</p> <p>14 Q But you can't see any evidence of a</p> <p>15 spill?</p> <p>16 A No, but common sense. I mean, you're</p> <p>17 handling liquid material in old tanks, I would</p> <p>18 expect something to happen, but I don't see it as</p> <p>19 it's happening in the screen shot. This is after</p> <p>20 the tanks were removed too.</p> <p>21 Q Based on the way the site was used in the</p> <p>22 1938 image and this one, was the use consistent in</p>
<p style="text-align: right;">Page 195</p> <p>1 Q Also, the blow-down sump and the other</p> <p>2 sump on the bottom of the Sanborn map in this</p> <p>3 image you did not mark in your notations. Do you</p> <p>4 know why that is?</p> <p>5 A I don't. I would have to do a comparison</p> <p>6 to see. I don't recall why that wouldn't be</p> <p>7 labeled, if it wasn't.</p> <p>8 Q Okay. Let's move to the next image.</p> <p>9 This is labeled September 5, 1950, Arkansas City,</p> <p>10 Kansas. So you noted a number of features in this</p> <p>11 photo as well, including dark liquid, pits,</p> <p>12 impoundments, disposal areas. I guess, what's</p> <p>13 different about this photo than the previous</p> <p>14 photo?</p> <p>15 A Well, I can tell you there's been filling</p> <p>16 of some pits that have to do -- again, I know it's</p> <p>17 clunky, but a comparison between two dates I can</p> <p>18 be more clear on what's changed -- but there</p> <p>19 are -- I've described that the spray pond is</p> <p>20 divided into separate bays, I guess you could say.</p> <p>21 There's some filling because -- filling of pits</p> <p>22 because, by memory, they were more in center of</p>	<p style="text-align: right;">Page 197</p> <p>1 those two time periods?</p> <p>2 A What are the time periods again in the</p> <p>3 photographs?</p> <p>4 Q Based on what you saw in the 1938 photo</p> <p>5 and this 1950 photo, was the site in consistent</p> <p>6 use as a refinery?</p> <p>7 MR. PETIT: Objection. Speculation.</p> <p>8 If you know.</p> <p>9 THE WITNESS: I could describe changes</p> <p>10 between those two dates. There's obviously been</p> <p>11 changes. I don't know that I could describe what</p> <p>12 type of activity in the process of the refinery</p> <p>13 just based on the imagery. That would require</p> <p>14 someone else to help, you know -- if a certain</p> <p>15 feature has been removed that's critical to</p> <p>16 operations that appears on this photograph that</p> <p>17 wasn't -- or has been removed on this, then they</p> <p>18 could opine on --</p> <p>19 THE REPORTER: I'm sorry. Has been</p> <p>20 removed on this, then...</p> <p>21 THE WITNESS: I can't opine on changes to</p> <p>22 the process on the facility.</p>

<p style="text-align: right;">Page 198</p> <p>1 BY MS. MENEES:</p> <p>2 Q Well, let's compare the 1938 image, so</p> <p>3 that's page 83, and page 85 of Exhibit 1. Page --</p> <p>4 not the Sanborn map. Page --</p> <p>5 MR. PETIT: Danny, I'm sorry to be</p> <p>6 difficult. Can you put the earlier in time on the</p> <p>7 left-hand side?</p> <p>8 THE WITNESS: That's what he's doing.</p> <p>9 MR. PETIT: Okay.</p> <p>10 MS. MENEES: And Danny, could you zoom in</p> <p>11 to just the main area with all the notations?</p> <p>12 BY MS. MENEES:</p> <p>13 Q Okay. So looking at this -- these two</p> <p>14 comparisons, the 1938 on the left and the 1950 on</p> <p>15 the right, there are pits used in both of these</p> <p>16 time periods, right?</p> <p>17 A Yes. There are pits used in both</p> <p>18 periods, but there's changes on where they're</p> <p>19 located. Some of them are the same and some</p> <p>20 aren't.</p> <p>21 Q And there's dark liquid in both of these</p> <p>22 photographs, right?</p>	<p style="text-align: right;">Page 200</p> <p>1 A Yes.</p> <p>2 Q And as we went through the photo, you</p> <p>3 didn't see -- or the photos for the Arkansas City</p> <p>4 refinery, you couldn't note any specific spills,</p> <p>5 right?</p> <p>6 A I just see areas of disposal, not</p> <p>7 specific spills on that date of photography. But</p> <p>8 pits that are associated with handling of that</p> <p>9 type of spill or cleanup.</p> <p>10 Q Okay. And you noted landfilling in the</p> <p>11 places that we discussed but no further</p> <p>12 landfilling?</p> <p>13 A Filling of the pits. I didn't identify</p> <p>14 other form in other areas other than showing the</p> <p>15 pits and some of the mottled-toned material that</p> <p>16 could be associated with them.</p> <p>17 Q Okay. Let's move on to the next</p> <p>18 refinery. So this is Blue Island, Worth Refining.</p> <p>19 And let's go to page 89. So this image is dated</p> <p>20 November 14th, 1938, and it's Blue Island,</p> <p>21 Illinois. You noted a pit in this image, right?</p> <p>22 A Yes.</p>
<p style="text-align: right;">Page 199</p> <p>1 A Yes. I've identified it in some</p> <p>2 locations that are the same and some locations</p> <p>3 that are new.</p> <p>4 Q Right. So all of these disposal</p> <p>5 features, even if they moved, they're both present</p> <p>6 in the 1938 and the 1950 photo, right?</p> <p>7 A Yeah. I see disposal features in both</p> <p>8 dates of photography, certainly.</p> <p>9 Q Okay. Let's move to the last image.</p> <p>10 MR. PETIT: Can you go ahead and mark</p> <p>11 that, please?</p> <p>12 MS. MENEES: This was just a comparison</p> <p>13 between these two photos. I don't think we have</p> <p>14 to do a new exhibit for that one.</p> <p>15 So -- sorry, the one -- the page before</p> <p>16 that, Danny. Thanks.</p> <p>17 BY MS. MENEES:</p> <p>18 Q And there's still pits present in this</p> <p>19 photo dated June 1st, 1954, right?</p> <p>20 A Yes. Closer to the river.</p> <p>21 Q And dark liquid is still present in this</p> <p>22 photo too, correct?</p>	<p style="text-align: right;">Page 201</p> <p>1 Q And the light-toned material, how could</p> <p>2 you tell what that was?</p> <p>3 A I can only tell you that it's a</p> <p>4 light-toned material. It looks like a fill for</p> <p>5 development that was brought in, but I can't tell</p> <p>6 exactly what that is other than it's a light-toned</p> <p>7 material.</p> <p>8 Q Okay. And the drainage to Stony Creek,</p> <p>9 could you tell with certainty that's what was</p> <p>10 happening there?</p> <p>11 A Yeah, that drainage pathway goes under a</p> <p>12 spur or this rail -- I can't remember what -- I</p> <p>13 think that's just a road. But I can see it as it</p> <p>14 drains to the creek. I can follow it</p> <p>15 three-dimensionally.</p> <p>16 Q Just going back to the pit, you can't</p> <p>17 tell what's in the pit, right?</p> <p>18 A No, but I would expect the pit on a</p> <p>19 facility like this to be facility waste. I can't</p> <p>20 test it with aerials, no. I can just tell you</p> <p>21 it's dark in tone and its proximity to the process</p> <p>22 area.</p>

<p style="text-align: right;">Page 202</p> <p>1 Q Are there any other significant 2 environmental features in this image? 3 A No, not that I've mapped out. 4 Q Okay. And just going back to the 5 light-toned material, based on your experience, 6 what would that be for? 7 A Well, in the later years, they developed 8 over it. I don't know if there was some facility 9 there that produced that material or if they 10 brought it out there to make a really nice level 11 surface for development and it was then purchased 12 by the refinery and used for another purpose. You 13 know, I don't have enough information to tell you 14 how that got there, but I can tell you it's a very 15 level surface and it's very light in tone. 16 Q Do you think it was for landfilling? 17 A Well, as I said before, it could be 18 intended to have material built on top of it, but 19 in subsequent years, I could tell they moved -- 20 they removed some of that material and they 21 possibly used it to build up berms around the site 22 as it developed. I'm just not certain, but those</p>	<p style="text-align: right;">Page 204</p> <p>1 than what's covered by the Sanborn. 2 Q Is the drainage to Stony Creek in the 3 same place as it was in the 1938 image? 4 A It may have been channelized. I'd have 5 to look at it stereoscopically. I just don't 6 remember. But it's generally in the same 7 location. It looks very straight, like it was 8 possibly dragged or straightened. 9 Q You didn't see any pits in this photo? 10 A No. I don't see pits. I mean, there is 11 a lot of disturbance in that light-toned area 12 below the structures, south of the structures, 13 that is. So I was looking -- you know, a 14 facility -- you know, where would they put, you 15 know, waste material here? You know. The only 16 space where that would happen is either within the 17 berms of the tanks -- there's some space in 18 there -- and possibly, you know, to the -- or 19 below or south of the structures to the east of 20 the facility. 21 Q So you said there's disturbance in the 22 light-toned area. Could you expand on that a</p>
<p style="text-align: right;">Page 203</p> <p>1 are possibilities. 2 Q And you can't tell whether it is a 3 disposal area? 4 A It really don't look like a disposal 5 area, you know, unless the waste material was very 6 even-toned and light in tone. But I don't expect 7 that type of material on a refinery like this. 8 Q Okay. Let's move to the next image. 9 This is a Sanborn map from October 1949. You 10 didn't note anything in this Sanborn map, right? 11 A Right. I just wanted to include it in 12 the report. We had it and it shows those facility 13 names or building names on it. 14 Q Do you recall whether this Sanborn map 15 includes any notations of pits or traps? 16 A I don't believe it does. 17 Q All right. Let's move to the next image. 18 This is from December 4th, 1951. So there are a 19 bunch of tanks that you've labeled as first 20 visible, but we don't have any images from the 21 construction of those tanks, rights? 22 A No, not the new construction tanks, other</p>	<p style="text-align: right;">Page 205</p> <p>1 little bit? What do you mean by disturbance? 2 A Well, they've used that -- some of the 3 material is gone. You saw in the 1938 date it was 4 very straight and very light in tone. Now you can 5 see how it's -- it's got some signature like 6 they've removed some material from it. If you 7 want to go side-by-side, it may be more clear to 8 me how it's changed. 9 Q I don't know if that's necessary for this 10 image. So do you think that it's a disposal area 11 now? 12 A It's a potential area for disposal. I 13 mean, this is a fairly tightly packed refinery. 14 It's either within those open areas in the tank 15 levies or in that area south of the structures. 16 But I don't see open pits on this photograph. 17 Q Did you see -- do you see any off-site 18 dumps? 19 A I looked around. I don't see an obvious 20 location that's close to this. But I'd have to 21 look at the imagery again. I see no evidence of 22 that necessarily.</p>

<p style="text-align: right;">Page 206</p> <p>1 Q So it's your testimony today that you</p> <p>2 didn't see any off-site dumps?</p> <p>3 A Well, I don't know if I could</p> <p>4 specifically say it's associated with this</p> <p>5 facility. I may have seen a dump site somewhere</p> <p>6 on this image. I don't really recall a specific</p> <p>7 one. But I looked in this area and I don't see an</p> <p>8 obvious spot associated with this facility.</p> <p>9 Q Did you see any oil-water separator units</p> <p>10 in this image?</p> <p>11 A Not on this image.</p> <p>12 Q Okay. Is it possible that waste could</p> <p>13 have gone off site from this site?</p> <p>14 A You know, there would have to be some</p> <p>15 other testimony. I mean, it's possible, but I</p> <p>16 just don't -- I don't see it in my imagery.</p> <p>17 Q You don't see any waste in this imagery,</p> <p>18 correct?</p> <p>19 A I don't see disposal activities ongoing.</p> <p>20 I don't see pits. But, you know, being so tightly</p> <p>21 packed, I would have to say there's a possibility</p> <p>22 that would be within the tank boundaries, but --</p>	<p style="text-align: right;">Page 208</p> <p>1 A Well, I think it's -- in that early date</p> <p>2 I didn't see bays of an obvious separator. I do</p> <p>3 see an open-top feature that -- I couldn't discern</p> <p>4 if it was a pit or a separator.</p> <p>5 Q So what would you be looking for if it</p> <p>6 were a separator that you didn't see in this</p> <p>7 image?</p> <p>8 A Like I said, usually there's bays or --</p> <p>9 the separator would have separate bays, so little</p> <p>10 walls within the separator itself.</p> <p>11 Q And what made you think it was a</p> <p>12 separator despite the fact that there were no</p> <p>13 bays?</p> <p>14 A The basic shape of it, and it looks to be</p> <p>15 an engineered-type feature instead of a -- dug</p> <p>16 into the ground. It looks almost like it's got</p> <p>17 concrete walls. Very straight walls.</p> <p>18 Q And by separator, do you mean oil-water</p> <p>19 separator?</p> <p>20 A Yes.</p> <p>21 Q And was the drainage to Stony Creek still</p> <p>22 visible on this photo?</p>
<p style="text-align: right;">Page 207</p> <p>1 or south of the structures.</p> <p>2 Q But you don't actually see any disposal</p> <p>3 activity in those areas in this image?</p> <p>4 A No, not in this image I don't see an open</p> <p>5 pit.</p> <p>6 Q Or other disposal activities?</p> <p>7 A Yeah. Or other disposal activities</p> <p>8 ongoing.</p> <p>9 Q Okay. Let's move to the next image.</p> <p>10 This is dated March 29, 1952. It looks like you</p> <p>11 noted a pit in this image that has appeared since</p> <p>12 1951. So was that pit constructed between 1951</p> <p>13 and 1952?</p> <p>14 A Yes, I would say it was.</p> <p>15 Q Do you see any other disposal areas in</p> <p>16 this image?</p> <p>17 A I don't see open pits. I could just say</p> <p>18 the only place it could be on site is within the</p> <p>19 bermed areas or in that general area where the</p> <p>20 separator/pit is located.</p> <p>21 Q Why did you label the pit a</p> <p>22 pit/separator?</p>	<p style="text-align: right;">Page 209</p> <p>1 A Yes, it's more clearly visible and</p> <p>2 mapped.</p> <p>3 Q Are there any other environmental</p> <p>4 features that you noted on this photo that you</p> <p>5 didn't label?</p> <p>6 A No.</p> <p>7 Q Okay. So for the Worth refinery, you</p> <p>8 didn't see any evidence of spills; is that right?</p> <p>9 A I didn't see pits or spills. So on this</p> <p>10 one, no, I don't believe I saw that in the</p> <p>11 imagery.</p> <p>12 Q Okay.</p> <p>13 MR. PETIT: Well, take a step back. So</p> <p>14 I'm going to object as vague as to which imagery.</p> <p>15 BY MS. MENEES:</p> <p>16 Q Let's move to the next image,</p> <p>17 November 10th, 1953. So you labeled standing</p> <p>18 water in a few parts of this image. What made you</p> <p>19 think it was standing water?</p> <p>20 A Well, I see the reflection of the actual</p> <p>21 tank. I can read the tank in the reflection of</p> <p>22 the standing liquid there. I should say standing</p>

<p style="text-align: right;">Page 210</p> <p>1 liquid. You know, there's a dark area around it, 2 but I see a little portion that's just got 3 precipitation. 4 Q Okay. So it's your opinion that this is 5 standing liquid and not standing water? 6 A Well, it doesn't -- I don't see -- it 7 doesn't have a dark surface to it. It's -- you 8 know, just looks like gathered-up water is what I 9 said. I mean, I can't actually confirm it's just 10 water. I mean, it may be some type of, you know, 11 hydrocarbons in that. But it's dark around the 12 tanks, but -- you know, and I see dark areas along 13 the rim of the tanks, but not -- and the side of 14 some of the other tanks. But that particular 15 area, it's got no indication of a slick or 16 anything like that. So I think it's more likely 17 water. 18 Q Okay. So it's your opinion that that 19 liquid is more likely water than not; is that 20 right? 21 A Yes. In that one area that I pointed 22 out, yes.</p>	<p style="text-align: right;">Page 212</p> <p>1 into the tank spilled off the side. 2 Q You think it's spillage? 3 A It appears to be, yes. 4 Q Can you actually see any spillage 5 occurring in this image? 6 A It's a snapshot. I see areas that have a 7 signature that dark liquid has run down the sides 8 of these tanks, but I don't see it moving. It's a 9 photograph. 10 Q Right. But there is no activity to 11 indicate what that actually is? 12 A Well, it's on a refinery. It's on a 13 tank. There's a high likelihood that that's some 14 type of petroleum -- either product or waste 15 material. 16 Q Other than this image, did you see any 17 other indication of spills at the Worth refinery? 18 A Just this image. I don't know that I see 19 spillage on this other than the areas I've already 20 pointed out. There is a dark surface in those 21 berms, but I can't absolutely say that that's 22 spillage or a stain from spillage of those tanks.</p>
<p style="text-align: right;">Page 211</p> <p>1 Q Okay. What is the significance of the 2 drums that you labeled in this photo? 3 A That's just a common environmental source 4 if there are any kind of leaking drums or used 5 drum storage. That's quite often an 6 environmentally significant feature. So I was 7 able to see them, so I pointed them out. 8 Q So if you saw drums in any photo, you 9 would label them because they're an 10 environmentally significant feature? 11 A Not any photo, but I did on this photo. 12 If -- you know, there are new drums in a storage 13 area, I would point that out, yes, I mean, because 14 quite often they either handle materials with 15 contaminants in it or they could handle 16 cleanup-type materials as well. I'm just saying I 17 was able to see the drums. So it may have some 18 interest to someone else in the litigation. 19 Q Okay. And the dark areas along the side, 20 do you have any further -- any further 21 observations about what that might be? 22 A Whatever was in that tank or being put</p>	<p style="text-align: right;">Page 213</p> <p>1 It does appear to be dark within the berm. 2 Q Okay. So -- and then for the previous 3 images that we looked at, you didn't indicate any 4 spills either, right? 5 A I don't know that I indicated spills in 6 the earlier dates. I don't think so. 7 Q You didn't when we went through it just 8 now. Do you remember that? 9 MR. PETIT: Objection. 10 Mischaracterization of testimony. 11 THE WITNESS: I do see it on this 12 photograph. I don't know that I've seen it on the 13 other photographs. If I labeled it as such, then 14 I saw it, but... 15 BY MS. MENEES: 16 Q And if you didn't label it, you didn't 17 see it? 18 A Yes, generally. 19 Q Okay. Let's move to the next refinery. 20 MS. MENEES: Let's go to page 97 -- or, 21 sorry, 98. 97 was right. Sorry Danny. 22 BY MS. MENEES:</p>

<p style="text-align: right;">Page 214</p> <p>1 Q So you labeled some pits in this image, 2 right?</p> <p>3 A Right.</p> <p>4 Q Are there just two pits?</p> <p>5 A Well, that's all I've got labeled. It 6 gets very dark in the tank area just to the north 7 of that, but that's all that I could really 8 discern.</p> <p>9 Q Okay. And this image is dated July 17th, 10 1934, Hanford, California. And the dark area, do 11 you have any -- do you have any observations about 12 what that might be?</p> <p>13 A The dark area in the refinery?</p> <p>14 Q The area you labeled dark area.</p> <p>15 A No. It looks like vehicles tracked 16 through some dark liquid and tracked it around the 17 site. It also -- you could see it on the roads, 18 tracking out to the roads out fading away, very 19 dark around the refinery. It's either dust 20 suppression or they've driven through a spill and 21 tracked it around the site.</p> <p>22 Q Going to South Williams Road, do you see</p>	<p style="text-align: right;">Page 216</p> <p>1 Q Do you mean to say that they could have 2 intentionally made the road that color?</p> <p>3 A Well, you know, it's California. It 4 could be -- if there's a lot of traffic through 5 that area and some -- a dirt road or parking lot, 6 you know, those trucks kick up a lot of dust and 7 there's people's houses around there; they may 8 complain about dust. So that would be how they 9 would control something like that.</p> <p>10 Q So you think this is a dirt road?</p> <p>11 A You know, I've given you a couple of 12 reasons why that would be there, but I mean, yes, 13 I would say, based on that signature, that that 14 would be dirt -- but I'm not really talking about 15 the road; I'm talking about the parking lot there. 16 And I'm pointing out the dark area.</p> <p>17 Q Sorry, I didn't quite catch that. Could 18 you repeat that?</p> <p>19 A Well, I labeled an area in the refinery 20 or at least to the north of it. That's not a 21 road. It's a parking lot or a pathway. I'm not 22 really opining on the roads. But I'd say that's a</p>
<p style="text-align: right;">Page 215</p> <p>1 how the road looks darker in the northern part of 2 the image than the southern part?</p> <p>3 A Yes.</p> <p>4 Q And that's consistent with your 5 interpretation that there was -- it was caused by 6 driving on the refinery?</p> <p>7 A Well, I'll just describe how it typically 8 happens is there's a spill, the vehicle drives 9 through the spill and it gets on the vehicle's 10 tires, and as the vehicle continues along the 11 road, it deposits the material and then gradually, 12 as it gets farther away from the source of the 13 material on the tires, it fades away. But --</p> <p>14 Q Can you tell -- sorry. Go ahead. 15 Continue.</p> <p>16 A Well -- but again, it could be 17 intentional or it could be a spill that --</p> <p>18 THE REPORTER: I'm sorry. But, again, it 19 could be...</p> <p>20 THE WITNESS: Intentional or it could be, 21 you know, tracking through a spill.</p> <p>22 BY MS. MENEES:</p>	<p style="text-align: right;">Page 217</p> <p>1 dirt area.</p> <p>2 Q I understand that. I was actually not 3 talking about that area. I was talking about 4 South Williams Road.</p> <p>5 A Okay.</p> <p>6 Q Do you see how that -- the road looks 7 dark as it sort of wraps around the refinery, and 8 then it sort of gets lighter to the south?</p> <p>9 A Right. And I think I explained a 10 possible reason for that.</p> <p>11 Q Right. Well, I was asking whether that 12 road was dirt or paved.</p> <p>13 A I'm not -- you know, I can't really tell 14 definitively from the aerial photography which is 15 black and white. I'd say -- I just haven't made 16 that type of analysis. I'd have to get in there 17 and look at the stereoscopic coverage and try to 18 determine that. That wasn't part of my analysis 19 on this.</p> <p>20 Q Right. You mentioned that, in 21 California, that dust could be an issue; is that 22 right?</p>

<p style="text-align: right;">Page 218</p> <p>1 A Yes. I didn't -- but I have not done an</p> <p>2 analysis of rainfall events on this particular</p> <p>3 date, so...</p> <p>4 Q And refineries could have -- or people</p> <p>5 could have poured oil on the road in order to</p> <p>6 suppress the dust; is that right?</p> <p>7 A It could have been oil or some kind of</p> <p>8 liquid to keep the area moist so the dust wasn't</p> <p>9 kept up.</p> <p>10 Q And that could explain the tone of the</p> <p>11 road, right?</p> <p>12 A It could. It doesn't really explain why</p> <p>13 the refinery is so dark.</p> <p>14 THE REPORTER: It doesn't really</p> <p>15 explain...</p> <p>16 THE WITNESS: Why the area of the</p> <p>17 refinery is so dark. It --</p> <p>18 THE REPORTER: I'm sorry. You're muffled</p> <p>19 and you're coming in and out. Does anybody else</p> <p>20 hear that?</p> <p>21 MS. MENEES: Yeah, I heard the sound</p> <p>22 quality deteriorate some.</p>	<p style="text-align: right;">Page 220</p> <p>1 Q Okay. So you don't know why that part is</p> <p>2 so dark?</p> <p>3 A No. It's very dark. I don't really know</p> <p>4 why the whole area would be dark like that.</p> <p>5 Q Could it have been from a spill?</p> <p>6 A It seems odd that would be -- encompass</p> <p>7 that large of an area. I just don't know.</p> <p>8 Q Okay. Let's move to the next image.</p> <p>9 This photo is dated September 14th, 1937. Are</p> <p>10 these the same pits that were visible in the</p> <p>11 previous photo?</p> <p>12 A Yes. They're in the same location.</p> <p>13 There may be slight changes, but they're very</p> <p>14 similar and in the same location.</p> <p>15 Q And there are some new tanks that were</p> <p>16 added in this image, right?</p> <p>17 A Yes. South of the pits and northeast on</p> <p>18 the site area.</p> <p>19 Q Did you notice any other significant</p> <p>20 environmental features in this photo, either when</p> <p>21 you were first looking at it or in your review?</p> <p>22 A No, not other than what I had described.</p>
<p style="text-align: right;">Page 219</p> <p>1 THE REPORTER: So what I have is, It</p> <p>2 could. Doesn't really explain why the area of the</p> <p>3 refinery is so dark.</p> <p>4 THE WITNESS: Yeah, that's what I said.</p> <p>5 BY MS. MENEES:</p> <p>6 Q Could you label the parts of the road</p> <p>7 that may have been dust-suppressed?</p> <p>8 A Okay. I can't get this. I don't know if</p> <p>9 it's not updating. I'm trying to remove this</p> <p>10 label. Oh, there we go. Okay. I'm sorry, guys.</p> <p>11 Q Actually, it's okay. You don't have to</p> <p>12 do -- I was -- I have a different question I can</p> <p>13 ask you.</p> <p>14 A And I just want to clarify, you know, it</p> <p>15 could be that. It could be dust suppression or it</p> <p>16 could be, like I said, a spill that they had</p> <p>17 driven through. I'm just not certain.</p> <p>18 Q You were referring to an area of the</p> <p>19 refinery that's dark. Is that a label -- the area</p> <p>20 that's labeled dark area or is it the southern</p> <p>21 part of the refinery?</p> <p>22 A It's the southern part of the refinery.</p>	<p style="text-align: right;">Page 221</p> <p>1 Q Is the northern portion of South Williams</p> <p>2 Road still looking dark compared to the rest of</p> <p>3 the road?</p> <p>4 A It does appear to be a little bit darker.</p> <p>5 You still see a darker streak on the southern</p> <p>6 portion, but it's not -- it doesn't cover quite as</p> <p>7 much of the road.</p> <p>8 Q Okay. Let's move to the next image.</p> <p>9 This is dated May 19th, 1942. It looks like there</p> <p>10 are some more pits in this photo. How many pits</p> <p>11 are there? Can you tell?</p> <p>12 A Well, there are three new roughly</p> <p>13 rectangular or square pits and then more of a</p> <p>14 linear-type pit farther to the east.</p> <p>15 Q When you say linear-type pit, what do you</p> <p>16 mean?</p> <p>17 A Well, it's more linear. It's not quite</p> <p>18 as rectangular as the other two. Maybe like a</p> <p>19 secondary containment pit from these other three</p> <p>20 pits.</p> <p>21 Q Oh, you're talking about the very thin</p> <p>22 pit?</p>

<p style="text-align: right;">Page 222</p> <p>1 A Yes. Further to the east.</p> <p>2 Q Are there two thin pits or am I seeing</p> <p>3 that incorrectly?</p> <p>4 A I've only got one labeled. I think</p> <p>5 there's just one, but I'd have to refer to the</p> <p>6 stereoscopic imagery. Basically, there's new pits</p> <p>7 in that area. That's what my focus was.</p> <p>8 Q And you can't tell what's in the pits,</p> <p>9 right?</p> <p>10 A Well, I would say it's dark tone. It's</p> <p>11 associated with facility waste of some kind.</p> <p>12 Q And can you tell whether the pits are</p> <p>13 lined?</p> <p>14 A No, but based -- not based on just aerial</p> <p>15 imagery, but based on practices in the '40s, I</p> <p>16 would say it's unlined.</p> <p>17 Q What about the construction material of</p> <p>18 the pits? Can you tell what that is?</p> <p>19 A It appears to be earthen. Haven't</p> <p>20 really -- you know, at least the northern-most of</p> <p>21 the new pits is earthen. I would have to look</p> <p>22 more closely at the southern ones. There could</p>	<p style="text-align: right;">Page 224</p> <p>1 THE WITNESS: All right. One second.</p> <p>2 Okay. So I could tell the southern-most pit that</p> <p>3 I was seeing on the previous date has been</p> <p>4 expanded and it's larger now on the -- forgive me,</p> <p>5 I don't know the exact date; the date is cut off.</p> <p>6 But you could tell the size of the pit has</p> <p>7 increased. The southern-most pit has been</p> <p>8 expanded slightly to the south and to the west.</p> <p>9 There's a new tank in there.</p> <p>10 The basic signature of the pit, that was</p> <p>11 one of the older pits that was there from earlier</p> <p>12 years. The surface area appears to be smaller.</p> <p>13 There may have been some filling or closing of</p> <p>14 that pit between the two dates.</p> <p>15 BY MS. MENEES:</p> <p>16 Q And it looks like you have a tank labeled</p> <p>17 as first visible in the 1950 image?</p> <p>18 A Yes. There's expanded -- the tank has</p> <p>19 been expanded and they've actually graded a little</p> <p>20 bit further to the south as well, like they're</p> <p>21 prepping that for construction.</p> <p>22 Q Okay. So what about the area labeled</p>
<p style="text-align: right;">Page 223</p> <p>1 be, you know, the walls made out of a different</p> <p>2 type of material on the sides.</p> <p>3 Q How certain are you that they're earthen?</p> <p>4 A I mean, they appear to be earthen. I</p> <p>5 haven't really in detail looked at those features.</p> <p>6 Q Do you see any oil-water separators in</p> <p>7 this image?</p> <p>8 A I don't see the classic rectangular</p> <p>9 separator on this date, no.</p> <p>10 Q Okay. Is there anything else that you</p> <p>11 noticed in this image that you didn't label?</p> <p>12 A No. I think that covers it.</p> <p>13 Q Okay. Let's move to the next image.</p> <p>14 This one is dated January 25th, 1950, and it's</p> <p>15 Hanford, California. Are the three pits that you</p> <p>16 label -- or four pits that you labeled, had they</p> <p>17 changed at all from the previous image?</p> <p>18 A Can you put them side-by-side for me?</p> <p>19 Q Yeah, sure.</p> <p>20 A Okay. I'd say the --</p> <p>21 MR. PETIT: Can you zoom in? Thank you,</p> <p>22 Danny.</p>	<p style="text-align: right;">Page 225</p> <p>1 dark area in the upper left-hand corner of the</p> <p>2 1942 image? Do you see that in the 1950 image as</p> <p>3 well or not?</p> <p>4 A I really don't -- I don't see it in the</p> <p>5 facility itself. I do see a little signature</p> <p>6 along the road, but not the way that it was</p> <p>7 before.</p> <p>8 Q And that dark area was also present in</p> <p>9 1934, correct -- 1934 and 1937?</p> <p>10 A I believe it was. I could review it and</p> <p>11 confirm. I'll take your word for it. Just pass</p> <p>12 it in front of me and --</p> <p>13 MS. MENEES: Yeah. Let's pull up the</p> <p>14 1937 image, Danny. That is page 99. And compare</p> <p>15 it to the 1942 image which is on the left right</p> <p>16 now.</p> <p>17 MR. HAMBRICK: 99 is the one on the left.</p> <p>18 MS. MENEES: Oh, it is? Okay. Then 98</p> <p>19 and 99.</p> <p>20 BY MS. MENEES:</p> <p>21 Q So the 98 -- or, sorry. The image on the</p> <p>22 left is the 1937 image and the image on the right</p>

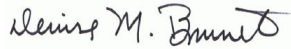
<p style="text-align: right;">Page 226</p> <p>1 is the 1942 image. And I wanted to compare the 2 area that you labeled dark area in the 1942 image. 3 Do you see it in the 1937 image as well? 4 A I see a little bit of it, but it's less 5 distinct. As you see, it exits the facility on to 6 the South Williams and goes north and south. You 7 can see how it's very dark where the vehicles 8 would travel. So it makes almost like a triangle 9 of darkness. So it's darker on the later date, 10 certainly. 11 Q Right. How would you characterize the 12 contrast between these two images? 13 A Yeah. The one on the left is less 14 contrasted. That means darks are less dark. But 15 generally, you're comparing within the facility 16 itself. You could tell relative to other dark 17 features, like shadows and things like that. 18 But the overall -- I'm not comparing an 19 overall darkness from one date to another. I'm 20 looking at, within that same photograph, compared 21 to other dark features off the facility, seeing 22 shadows and things like that. That's how you</p>	<p style="text-align: right;">Page 228</p> <p>1 on the left for 97? 2 BY MS. MENEES: 3 Q So this is from 1934. How does the 4 darkness of the road in this image compare to the 5 1942? 6 A It's more similar, but the areas are 7 different. They've got another access point as it 8 goes on to West Third Street. It's almost like a 9 circle in the later year, whereas in the earlier 10 year, it was just an in-and-out-type feature right 11 in the middle of the -- 12 Q The 1934 image looks even darker to me 13 than the 1942 image. 14 A Yes. But you're comparing -- 15 MR. PETIT: Objection. Counsel is 16 testifying. 17 THE WITNESS: To make that conclusion, 18 though, you're comparing the two photographs one 19 to another. I'm just comparing within that 20 photograph; you know, how dark is it compared to 21 other features? I'd say they're fairly 22 comparable.</p>
<p style="text-align: right;">Page 227</p> <p>1 would have to do a comparison. Because, you know, 2 atmospheric conditions would change the way 3 different photographs look as you compare them 4 date to date. 5 Also, the process of the photographs and 6 the copy of the photographs would change. So you 7 don't want to just rely on a tone. You have to 8 look at the context and you have to compare it 9 with relatively similar features. So I'm not just 10 comparing the darkness of one area to another. 11 I'm looking at, within that same image, how dark 12 is it compared to other dark features and is it as 13 distinct? 14 And you can clearly see, on the '40s-era 15 photograph on the right, it's much more clear 16 where the road is darker and where the facility 17 area is darker. You could see the triangle, as I 18 said, as it exits on to South Williams, and you 19 could see the area where the vehicles don't 20 typically drive, it's lighter in tone, whereas -- 21 Q Let's pull up the 1934 image. 22 MS. MENEES: Danny, could you exchange 98</p>	<p style="text-align: right;">Page 229</p> <p>1 BY MS. MENEES: 2 Q They're fairly comparable. Is one darker 3 than the other? 4 A As you just compare one photograph to 5 another photograph? 6 Q No, I'm talking about comparing the 7 darkness of that area to the darkness of other 8 features in the photo. Is there one where the 9 contrast is greater? 10 A I think it's too hard to tell that much 11 of a difference. I think it's fairly comparable. 12 I would say there's probably a little bit more 13 contrast on the earlier photograph which may 14 explain why the refinery looks so dark, too. 15 Q Okay. And comparing the color of the 16 pits in these photographs, is there one that's 17 more -- that contrasts more than the other 18 compared to the other images in the photo? 19 MR. PETIT: Objection. Vague. 20 THE WITNESS: Yeah, I'm not sure. Can 21 you specify something on a particular image? 22 THE REPORTER: I'm sorry. I'm not sure.</p>

<p style="text-align: right;">Page 230</p> <p>1 Can you...</p> <p>2 THE WITNESS: Can you specify a pit and</p> <p>3 what to compare it to?</p> <p>4 BY MS. MENEES:</p> <p>5 Q Okay. Compare the pits in each image to</p> <p>6 the dark area in each image. How do those</p> <p>7 color -- how do those tones compare?</p> <p>8 A Well, as I said, the pits are very dark</p> <p>9 in the more contrasted photograph. They're still</p> <p>10 very dark in less contrasted photograph. But,</p> <p>11 regardless, they're disposal features. I mean,</p> <p>12 they're dark features, which is exactly what I</p> <p>13 would expect in a disposal-type feature associated</p> <p>14 with a refinery handling refinery waste.</p> <p>15 I don't know what -- I mean, as I said,</p> <p>16 it's more contrasted in the earlier date, less</p> <p>17 contrasted. I don't know what else to say about</p> <p>18 it.</p> <p>19 Q So in the 1934 image, how close in color</p> <p>20 are the pits in the dark area?</p> <p>21 A I mean, the pits look darker. I can't</p> <p>22 tell you how close. It's just -- I could see more</p>	<p style="text-align: right;">Page 232</p> <p>1 But, I mean, I'm not making a conclusion</p> <p>2 based on just the scale of gray that these pits</p> <p>3 are relative to the dark area either. I don't</p> <p>4 know what you're trying to say. But if you're</p> <p>5 saying anything other than it's a shade of gray</p> <p>6 or -- and it's dark and it's fairly dark or</p> <p>7 whatever, that's not part of my testimony. I go</p> <p>8 much more into the other features of</p> <p>9 photo-interpretation than just looking at a</p> <p>10 gray-scale point and saying, if it's this dark,</p> <p>11 it's oil; if it's this dark, it's not oil. That's</p> <p>12 just not how it's done.</p> <p>13 BY MS. MENEES:</p> <p>14 Q Right. I'm trying to get at how the road</p> <p>15 has changed over time.</p> <p>16 A Okay.</p> <p>17 Q And so the 1937 image, I was trying to</p> <p>18 compare the shade of the pits to the dark area and</p> <p>19 then see if that had changed at all in the 1942</p> <p>20 image.</p> <p>21 A I understand.</p> <p>22 Q So -- yeah. So I guess, how would you</p>
<p style="text-align: right;">Page 231</p> <p>1 detail in the dark area and the pits are black.</p> <p>2 Q And what color would you say the dark</p> <p>3 area is?</p> <p>4 A A dark gray, a scale of gray. It's on</p> <p>5 the darker side.</p> <p>6 Q And that's your sworn testimony?</p> <p>7 A How I would describe the dark area?</p> <p>8 It's a --</p> <p>9 Q You wouldn't describe it as black also?</p> <p>10 A No, it's not black. I mean, it's dark,</p> <p>11 very dark. I mean, this is --</p> <p>12 Q And --</p> <p>13 THE REPORTER: I'm sorry. I didn't get</p> <p>14 the question. He was still in an answer.</p> <p>15 THE WITNESS: What I'm saying, and</p> <p>16 maybe -- this imagery is black and white. Okay?</p> <p>17 You're dealing with shades of gray between white</p> <p>18 and black. And I would say the pits can't get any</p> <p>19 blacker than they are. They're very black, very,</p> <p>20 very dark. The area that's dark, it can get</p> <p>21 darker. I mean, I see detail in there. That's</p> <p>22 not just a black area like you see in these pits.</p>	<p style="text-align: right;">Page 233</p> <p>1 say the road color has changed over time?</p> <p>2 A Okay. Well, the relative darkness of the</p> <p>3 road area or the dark area that I pointed out is</p> <p>4 lighter on both dates than the pits. Okay? On</p> <p>5 both dates. Just comparing within each date of</p> <p>6 photography. It does appear lighter than -- on</p> <p>7 the later date than it does on the earlier date.</p> <p>8 But I'm not making any conclusion based</p> <p>9 on that. There's other reasons for it to be</p> <p>10 lighter in the road area versus the pits also. I</p> <p>11 mean, there could be -- one photograph could be</p> <p>12 taken closer to an event where they did dust</p> <p>13 suppression, and as the days continue after that</p> <p>14 dust suppression event, it will fade, so the area</p> <p>15 gets lighter.</p> <p>16 I made no real conclusion based on the</p> <p>17 gray scale of it, just that obviously that area is</p> <p>18 darker than the surrounding areas and that</p> <p>19 something had been done to that area that had an</p> <p>20 effect. Not that it was more spillage in one date</p> <p>21 or the other. I wasn't making that conclusion.</p> <p>22 Q Okay. Let's move on to page 102. Sorry,</p>

<p style="text-align: right;">Page 234</p> <p>1 the page before that. Okay. This is a map 2 labeled March 1950, Hanford, California. And 3 there are a series of features labeled sump. Why 4 are they -- why did you label them as pits rather 5 than sumps? 6 A Well, as I said before, sumps and pits 7 are interchangeable to me. That's just a name for 8 pits in California. Maybe they -- it's possible 9 that I received this map after my interpretation 10 of features, so I just didn't change the name. 11 But they're the same thing to me. It doesn't 12 matter. Sump or pit. 13 Q On the next image, it looks like you 14 didn't label anything. Is there any reason why 15 you included it in your report? 16 A Just I didn't -- you know, I had it and I 17 wanted to include it in case it was needed for 18 someone else or someone asked me about it. 19 Q Okay. And then the next image is also a 20 map and it is labeled -- you have two sumps 21 labeled. Should I pull up a high-resolution 22 version of this?</p>	<p style="text-align: right;">Page 236</p> <p>1 again. Not based on... 2 THE WITNESS: On the label of the heavy 3 oil. That would be for someone else to help shed 4 light on activities on that facility. 5 BY MS. MENEES: 6 Q Okay. And then you also labeled a light 7 oil farm in the upper right-hand corner. Is there 8 any significance to that label for your 9 interpretations? 10 A No. It's the same answer as the heavy 11 oil farm label. 12 Q Okay. Let's move on to the next image. 13 MS. MENEES: Oh, we introduced that as an 14 exhibit, right, Danny? 15 MR. HAMBRICK: Yeah, it's Exhibit 11. 16 MS. MENEES: Exhibit 11. Okay. 17 (Deposition Exhibit Number 11 was marked 18 for identification.) 19 BY MS. MENEES: 20 Q This is labeled July 11th, 1954. And do 21 you -- oh, sorry. I moved on without Danny. 22 MR. PETIT: It's getting late.</p>
<p style="text-align: right;">Page 235</p> <p>1 A Sure. 2 MS. MENEES: Okay. Let's go to D-09. 3 Scroll down. I think that should be it in the 4 lower right-hand corner. 5 BY MS. MENEES: 6 Q So you labeled this -- the middle pit 7 area -- sorry. There's a heavy oil farm oil 8 refinery label in the middle of this image. Do 9 you see that? 10 A Yes. 11 Q What is the significance of that for your 12 aerial interpretation? 13 A I was trying to understand why that area 14 was very dark and I labeled it with the 15 possibility that someone else could shed more 16 light on what was going on in that area and if it 17 had a connection to what I was seeing on the 18 actual roads, the dark areas. 19 Q So you didn't draw any conclusions for 20 that, why it was dark in that area? 21 A Not based on -- 22 THE REPORTER: I'm sorry. You broke up</p>	<p style="text-align: right;">Page 237</p> <p>1 MS. MENEES: You're a champion, Danny. 2 Thank you. 3 BY MS. MENEES: 4 Q Okay. This is labeled July 11th, 1954. 5 And do you see any new -- did you see any new 6 features in this photo versus the previous 7 aerials? 8 A Yes. I've called out a tank in former 9 pit area that was seen previously. There's other 10 changes, but that's the one that I called out as a 11 change. 12 Q Okay. And that previous tank -- or 13 previous image was from 1950. So that tank was 14 constructed between 1950 and 1954, right? 15 A Yes. 16 Q And that would have been done through 17 landfilling? 18 A Yes. They would have to fill that 19 previous pit and then build on top of it. 20 Q Okay. Are there any other significant 21 environmental features in this image that you 22 didn't label?</p>

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<p>1 A Not that I recall, no.</p> <p>2 Q So based on the images that we just</p> <p>3 discussed, you didn't label any spills, right?</p> <p>4 A I didn't label it as a spill, but I</p> <p>5 labeled a dark area that's possibly associated</p> <p>6 with a spill. I just -- I can't tell how it got</p> <p>7 there.</p> <p>8 Q And that would be the dark area in the</p> <p>9 road or the dark area in the refinery?</p> <p>10 A Well, it's a signature of both. I mean,</p> <p>11 any equipment that runs through that would track</p> <p>12 it out the site, or primarily on the site.</p> <p>13 Q Okay. So that would have been in the</p> <p>14 193- -- I'm just going to double-check -- the 1934</p> <p>15 image, then?</p> <p>16 A There were two dates where I noted that.</p> <p>17 I don't recall the exact dates, but one was in the</p> <p>18 '30s and one I believe was in the '40s.</p> <p>19 Q 1942 image. So it's your testimony that</p> <p>20 those could potentially be linked to spills?</p> <p>21 A It could be, yes.</p> <p>22 Q And the refinery -- they were using pits</p>	<p>1 earlier years. And in later years, in 1954, they</p> <p>2 no longer used that pit. They redeveloped it into</p> <p>3 a tank. So you would have to say they don't need</p> <p>4 that pit disposal area as much as they needed it</p> <p>5 in the earlier year.</p> <p>6 Q Is that a conclusion that you're making</p> <p>7 based on your aerial interpretation?</p> <p>8 A Well, you were asking me how things had</p> <p>9 changed, and I described them to you. That's how</p> <p>10 it's changed. They turned a very large pit into a</p> <p>11 new tank area.</p> <p>12 I don't know what that says about the</p> <p>13 operations between those two dates, but that's a</p> <p>14 visible change that I can see. Maybe someone else</p> <p>15 can shed more light and expand on that.</p> <p>16 Q Okay. Let's move on to Houston. Let me</p> <p>17 go to page 108.</p> <p>18 Actually, maybe -- since Houston is two,</p> <p>19 it might be worthwhile to go to Memphis, first.</p> <p>20 So can we go to page 131. Okay. You noted three</p> <p>21 light-toned pits in this area. How do you see</p> <p>22 those?</p>
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<p>1 in the '30s and the '50s, so the disposal</p> <p>2 practices remained similar, right?</p> <p>3 A They've expanded it. I can't tell you</p> <p>4 the details of how they disposed -- I can tell you</p> <p>5 that there were pits there and, as a practice,</p> <p>6 that would be similar, but I don't know what's</p> <p>7 going in those pits, if the process changed or</p> <p>8 anything like that. I could tell you there's</p> <p>9 change on -- to the pits, but that's it.</p> <p>10 I'd also say whenever there's</p> <p>11 development -- redevelopment of a pit indicates</p> <p>12 that something has changed. They don't require</p> <p>13 that much space for the pit anymore. There's more</p> <p>14 of a premium on having a tank in that area than a</p> <p>15 pit --</p> <p>16 THE REPORTER: There's more of a...</p> <p>17 THE WITNESS: Premium on having pit</p> <p>18 acreage rather than -- I mean, I'm sorry, tank</p> <p>19 acreage rather than pit area.</p> <p>20 BY MS. MENEES:</p> <p>21 Q What do you mean by that?</p> <p>22 A Well, they had a very large pit in</p>	<p>1 A No. I labeled those light-toned piles.</p> <p>2 Q Oh, I'm sorry. Good catch.</p> <p>3 So these light-toned piles, are they</p> <p>4 associated with landfilling or is there another</p> <p>5 refinery activity, in your experience, that they</p> <p>6 would be associated with?</p> <p>7 A Well, typically, when I see filling</p> <p>8 activities for construction, I just call it</p> <p>9 filling. It's -- usually when I say landfilling,</p> <p>10 it's a disposal-type activity.</p> <p>11 This looks to be filling with</p> <p>12 construction of this refinery. So they're</p> <p>13 bringing material in to build it up and maybe to</p> <p>14 use it for berms or elevating the area for</p> <p>15 development.</p> <p>16 Q So you think the light-toned piles are</p> <p>17 associated with construction of the refinery?</p> <p>18 A Yes. I mean, they don't appear to be a</p> <p>19 disposal-type feature.</p> <p>20 Q Okay. Can you tell me anything else</p> <p>21 about those piles?</p> <p>22 A They're light in tone, linear. They</p>

<p style="text-align: right;">Page 242</p> <p>1 allow for pathways driving between them. I think</p> <p>2 that's about all I could say.</p> <p>3 Q And you don't see any pits in this photo?</p> <p>4 A No, I haven't identified any pits.</p> <p>5 Just --</p> <p>6 Q And there --</p> <p>7 THE REPORTER: No, I haven't identified</p> <p>8 any pits...</p> <p>9 THE WITNESS: That's it.</p> <p>10 BY MS. MENEES:</p> <p>11 Q And there are no other significant</p> <p>12 environmental features in this photo?</p> <p>13 A No, not that I see.</p> <p>14 Q Okay. Let's move to the map, the next</p> <p>15 image. This is labeled 1944. It's a Sanborn map</p> <p>16 and you have one feature labeled that's an oil</p> <p>17 pit. Is there anything else worth discussing in</p> <p>18 this photograph that was relevant to your report?</p> <p>19 A I don't believe so.</p> <p>20 Q Or map. Sorry. This is -- it's getting</p> <p>21 late.</p> <p>22 Let's move to the next image. This is</p>	<p style="text-align: right;">Page 244</p> <p>1 did.</p> <p>2 Q What's the significance of this being</p> <p>3 labeled an oil pit rather than just a pit?</p> <p>4 A That's just what they call it as on the</p> <p>5 Sanborn. I would just say a pit is a pit.</p> <p>6 Q So without the Sanborn, you would have</p> <p>7 labeled it just a pit?</p> <p>8 A Right.</p> <p>9 Q Did you see the debris in this photo in</p> <p>10 the Sanborn map?</p> <p>11 A No.</p> <p>12 Q How can you tell it's debris?</p> <p>13 A Well, looking at it stereoscopically, it</p> <p>14 appears to be some debris out in the field there</p> <p>15 or in the wooded area.</p> <p>16 Q Can you tell what type of --</p> <p>17 A I couldn't narrow it down on what it is.</p> <p>18 It's not a liquid material. It just -- debris,</p> <p>19 like blocky, different sizes of material in that</p> <p>20 area.</p> <p>21 Q Do you see any spills in this image?</p> <p>22 A I did mark along the drainage features to</p>
<p style="text-align: right;">Page 243</p> <p>1 labeled February 7th, 1946. I see you labeled the</p> <p>2 oil pit from the Sanborn in this image. Could you</p> <p>3 actually see that as a pit in your analysis?</p> <p>4 A I see a feature that looks to be a pit.</p> <p>5 You know, I'd have to look at that again, but I</p> <p>6 believe, yes, I could see them. I georeference --</p> <p>7 THE REPORTER: I'm sorry. You're</p> <p>8 breaking up again. I see a feature that looks to</p> <p>9 be a pit. You know, I'd have to look at that</p> <p>10 again, but I believe...</p> <p>11 THE WITNESS: When I did my analysis I</p> <p>12 used this map and I flickered in a coordinate</p> <p>13 system between these two photographs, and I see,</p> <p>14 in the area of what they identified as an oil pit,</p> <p>15 a dark area. So that's why I was looking -- it</p> <p>16 coincides with what's on the image -- I'm sorry,</p> <p>17 what's on the map.</p> <p>18 BY MS. MENEES:</p> <p>19 Q Did you see any depression in the ground</p> <p>20 in your analysis?</p> <p>21 A I'd have to look back at -- I just don't</p> <p>22 remember on that particular area. I believe I</p>	<p style="text-align: right;">Page 245</p> <p>1 the right of the image. That could be a spill or</p> <p>2 a leak-type feature, but I didn't identify others.</p> <p>3 Q Which drainage features are you talking</p> <p>4 about? Could you mark those?</p> <p>5 A Okay.</p> <p>6 Q So those two -- it's your testimony that</p> <p>7 those two features that you circled could be</p> <p>8 possible spills?</p> <p>9 A It could be some type of leak. It's a</p> <p>10 very curious -- you know, the contrast with what's</p> <p>11 around it. It's curious. I would say that's a</p> <p>12 good spot to look for contamination.</p> <p>13 Q Do you see anything else -- strike that,</p> <p>14 sorry.</p> <p>15 Why didn't you label that as a spill in</p> <p>16 your report?</p> <p>17 A Well, I didn't say it was a spill. It's</p> <p>18 a possible leak feature. I wasn't certain, so I</p> <p>19 didn't call it out.</p> <p>20 Q So how certain would you say that you are</p> <p>21 that they are spills?</p> <p>22 A I couldn't give you an exact number. I</p>

<p style="text-align: right;">Page 246</p> <p>1 would say, if you're looking for contamination, 2 sample in that area and there could very well be 3 contamination related to the facility there. 4 Q Are you more certain than not that there 5 are spills? 6 A It's probably equal. 7 Q Okay. Let's go to the next image. Or -- 8 actually, sorry. Let's stay on this one. Are 9 there any other significant environmental features 10 that you didn't mark? 11 A No, I don't think so. 12 Q Okay. Let's move to the next image. 13 MR. HAMBRICK: Are we going to admit this 14 as an exhibit? 15 MS. MENEES: Oh, yes. Sorry. Thanks, 16 Danny. 17 MR. HAMBRICK: This is going to be 12. 18 (Deposition Exhibit Number 12 was marked 19 for identification.) 20 BY MS. MENEES: 21 Q So this has been marked as Exhibit 12. 22 Does this accurately reflect to your annotations</p>	<p style="text-align: right;">Page 248</p> <p>1 Q Okay. So besides the two spills -- two 2 potential spills or leaks that you noted in the 3 1946 image, were there any other potential spills 4 or leaks that you saw in Memphis? 5 A I don't recall seeing that -- anything 6 else, no. 7 Q Any other landfilling or disposal 8 activities that you saw that you didn't mark? 9 A No. Just the debris area that I marked. 10 Q Okay. I think we're good on Memphis, 11 then. 12 MS. MENEES: And I'm not sure I want to 13 jump into another refinery, considering it's 14 getting -- we're seven minutes to 6:30. So can we 15 go off the record? 16 MR. PETIT: Yes. 17 (Whereupon, at 6:23 p.m., the remote 18 deposition of RANDALL GRIP was adjourned.) 19 20 21 22</p>
<p style="text-align: right;">Page 247</p> <p>1 on the February 7th, 1946 photo? 2 A Yes. 3 Q Okay. You labeled an oil pit in this 4 photo -- or this map. Is that the same pit that 5 you labeled in the previous aerial photo? 6 MR. PETIT: So for the record, we're 7 talking about 1952 Sanborn? 8 MS. MENEES: Yes. 9 THE WITNESS: You know, I don't exactly 10 remember. I'd have to look at it in a 11 georeferenced form. It seems to be oriented 12 north-south where I seem to remember it being 13 east-west earlier. But I just need to zoom in and 14 look. It's in the same general area. 15 BY MS. MENEES: 16 Q The 1944 Sanborn was also oriented 17 north-south. 18 A Okay. Then I would say it's the same 19 feature. 20 Q Is there anything else significant in 21 this map? 22 A No.</p>	<p style="text-align: right;">Page 249</p> <p>1 CERTIFICATE OF NOTARY PUBLIC 2 I, Denise M. Brunet, the officer before 3 whom the foregoing deposition was taken, do hereby 4 certify that the witness whose testimony appears 5 in the foregoing deposition was sworn by me; that 6 the testimony of said witness was taken by me 7 stenographically and thereafter reduced to print 8 by means of computer-assisted transcription by me 9 to the best of my ability; that I am neither 10 counsel for, related to, nor employed by any of 11 the parties to this litigation and have no 12 interest, financial or otherwise, in the outcome 13 of this matter. 14 15  16 Denise M. Brunet 17 Notary Public in and for 18 The District of Columbia 19 20 My commission expires: 21 December 14, 2022 22</p>

Randall Grip

May 19, 2020

<p style="text-align: right;">Page 250</p> <p>1 ACKNOWLEDGEMENT OF DEPONENT</p> <p>2 I, RANDALL GRIP, do hereby acknowledge I</p> <p>3 have read and examined the foregoing pages of</p> <p>4 testimony, and the same is a true, correct and</p> <p>5 complete transcription of the testimony given by</p> <p>6 me, and any changes and/or corrections, if any,</p> <p>7 appear in the attached errata sheet signed by me.</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21 _____</p> <p>22 Date RANDALL GRIP</p>	<p style="text-align: right;">Page 252</p> <p>1 CAPITAL REPORTING COMPANY</p> <p>1250 Eye Street, N.W. - Suite 350</p> <p>2 Washington, D.C. 20005</p> <p>Phone: 202-857-DEPO Fax: 973-629-1287</p> <p>3</p> <p>4 June 1, 2020</p> <p>5 To: William Petit, Esq.</p> <p>6 Case Name: MRP Properties Company, LLC, Et Al., v. United States Of</p> <p>America</p> <p>7</p> <p>Veritext Reference Number: 4115532</p> <p>8</p> <p>Witness: Randall Grip Deposition Date: 5/19/2020</p> <p>9</p> <p>10 Dear Sir/Madam:</p> <p>11 Enclosed please find a deposition transcript. Please have the witness</p> <p>review the transcript and note any changes or corrections on the</p> <p>12 included errata sheet, indicating the page, line number, change, and</p> <p>the reason for the change. Have the witness' signature at the bottom</p> <p>13 of the sheet notarized except in California where they are signing</p> <p>under penalty of perjury and email the errata sheet back to us at the</p> <p>14 address shown above.</p> <p>15</p> <p>If the jurat is not received within thirty days of your receipt of</p> <p>16 this letter, the reading and signing will be deemed waived.</p> <p>17</p> <p>Sincerely,</p> <p>18</p> <p>19 Production Department</p> <p>20</p> <p>21 Encl.</p> <p>22 Cc: Sydney Menees, Esq.</p>
<p style="text-align: right;">Page 251</p> <p>1 Capital Reporting Company</p> <p>2 1250 Eye Street, Northwest</p> <p>3 Suite 350</p> <p>4 Washington, D.C. 20005</p> <p>5 (202) 857-DEPO</p> <p>6 E R R A T A S H E E T</p> <p>7 Case Name: MRP Properties Company, et al. vs.</p> <p>8 United States</p> <p>9 Witness Name: Randall Grip</p> <p>10 Deposition Date: May 19, 2020</p> <p>11 Job No. 4115532</p> <p>12</p> <p>13 Page No. Line No. Change/Reason for Change</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21 _____</p> <p>22 Signature Date</p>	

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted fashion to authenticated parties who are permitted to access the material. Our data is hosted in a Tier 4 SSAE 16 certified facility.

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UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
NORTHERN DIVISION

- - - - - x
MRP PROPERTIES COMPANY, LLC, :
et al., :
Plaintiffs and :
Counterclaim :
Defendants, :
vs. : Case No.
UNITED STATES OF AMERICA, : 17-cv-11174
Defendant and :
Counterclaimant. :

- - - - - x VOLUME II

CONTINUED VIRTUAL DEPOSITION OF: RANDALL GRIP

DATE: Wednesday, May 20, 2020

TIME: 9:31 a.m.

LOCATION: Aero-Data Corp.

8280 YMCA Plaza Drive

Baton Rouge, Louisiana

REPORTED BY: Denise M. Brunet, RPR

Reporter/Notary

Capital Reporting Company

1250 Eye Street, N.W., Suite 350

Washington, D.C. 20005

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<p>1 A P P E A R A N C E S</p> <p>2</p> <p>3 On behalf of the Plaintiffs:</p> <p>4 WILLIAM C. PETIT, ESQUIRE</p> <p>5 WILLIAM J. JACKSON, ESQUIRE</p> <p>6 JENNIFER BARKS, ESQUIRE</p> <p>7 Kelley Drye & Warren</p> <p>8 515 Post Oak Boulevard</p> <p>9 Suite 900</p> <p>10 Houston, Texas 77027</p> <p>11 (713) 355-5023</p> <p>12 wpetit@kelleydrye.com</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22 (All parties appearing remotely.)</p>	<p>1 C O N T E N T S</p> <p>2 EXAMINATION BY: PAGE:</p> <p>3 Counsel for Defendant 258</p> <p>4 Counsel for Plaintiffs 335</p> <p>5 Counsel for Defendant 406</p> <p>6</p> <p>7 DEPOSITION EXHIBITS: PAGE:</p> <p>8 13 - Annotated photo - 4/3/1944 Houston,</p> <p>9 Texas 291</p> <p>10 14 - Annotated photo - 4/11/1954</p> <p>11 Mt. Pleasant, Michigan 302</p> <p>12 15 - Side-by-side annotated photos -</p> <p>13 1/1/1945 and 6/18/1947 Santa Fe</p> <p>14 Springs, California 328</p> <p>15 16 - Annotated photo - 6/18/1947 Santa Fe</p> <p>16 Springs, California 329</p> <p>17 17 - Side-by-side annotated photos -</p> <p>18 6/26/1938 and circa 1940s Alma,</p> <p>19 Michigan 344</p> <p>20 18 - Side-by-side annotated photos - circa</p> <p>21 1940s and 1941-1954 Alma, Michigan 349</p> <p>22 (Exhibits continued on the next page.)</p>
Page 254	Page 256
<p>1 APPEARANCES (continued):</p> <p>2</p> <p>3 On behalf of the Defendant:</p> <p>4 SYDNEY MENEES, ESQUIRE</p> <p>5 C. SCOTT SPEAR, ESQUIRE</p> <p>6 U.S. Department of Justice</p> <p>7 Environmental Defense Section</p> <p>8 4 Constitution Square</p> <p>9 150 M Street, Northeast</p> <p>10 Room 4.137</p> <p>11 Washington, D.C. 20002</p> <p>12 (202) 353-5885</p> <p>13 sydney.menees@doj.gov</p> <p>14</p> <p>15 ALSO PRESENT: Mark Donatiello</p> <p>16 Shelbie Lynch</p> <p>17 Danny Hambrick</p> <p>18 Ali Kral</p> <p>19</p> <p>20</p> <p>21</p> <p>22 (All parties appearing remotely.)</p>	<p>1 DEPOSITION EXHIBITS: PAGE:</p> <p>2 19 - Side-by-side annotated photos -</p> <p>3 5/20/1953 4/5/1954 Alma, Michigan 355</p> <p>4 20 - Side-by-side annotated photos -</p> <p>5 4/15/1940 and 5/22/1949 Ardmore,</p> <p>6 Oklahoma 362</p> <p>7 21 - Side-by-side annotated photos -</p> <p>8 7/10/1938 and 9/5/1950 Arkansas City,</p> <p>9 Kansas 366</p> <p>10 22 - Side-by-side annotated photos -</p> <p>11 11/14/1938 and 12/4/1951 Blue Island,</p> <p>12 Illinois 370</p> <p>13 23 - Side-by-side annotated photos -</p> <p>14 9/14/1937 and 5/19/1942 Hanford,</p> <p>15 California 374</p> <p>16 24 - Side-by-side annotated photos -</p> <p>17 11/8/1938 and 4/3/1944 Houston, Texas 378</p> <p>18 25 - Side-by-side photos - 10/25/1938 and</p> <p>19 4/3/1944 Houston, Texas 38</p> <p>20</p> <p>21</p> <p>22 DEPOSITION EXHIBITS: PAGE:</p>

<p style="text-align: right;">Page 257</p> <p>1 26 - Side-by-side annotated photos - 2 8/10/1937 and 2/7/1946 Memphis, 3 Tennessee 386 4 27 - Side-by-side annotated photos - 5 7/5/1938 and 7/27/1952 Mt. Pleasant, 6 Michigan 389 7 28 - Side-by-side annotated photos - 8 11/28/1938 and 3/25/1947 Port Arthur, 9 Texas 394 10 29 - Side-by-side annotated photos - 11 10/20/1938 and 9/7/1950 Potwin, Kansas 398 12 30 - Side-by-side annotated photos - 13 5/24/1938 and 1/1/1945 Santa Fe 14 Springs, California 402 15 16 (*Exhibits attached to the transcript.) 17 18 19 20 21 22</p>	<p style="text-align: right;">Page 259</p> <p>1 Okay. You labeled several features in 2 this photo. And some of them have, in 3 parentheses, Sanborn. I was wondering whether you 4 can see all of the features in this photo or 5 whether you were labeling them based on where they 6 are in the Sanborn map? 7 A Well, I can see them and I've got the 8 label from the Sanborn. So there's a feature 9 there. It's not as clear, but I can definitely 10 tell there's a pit-type feature or a trap feature 11 there, and obviously the lake and the oil trap. 12 They're very obvious features. Slush pond [sic]. 13 It's just the naming, again, as I did before on an 14 earlier site. 15 Q What is a slush pit? 16 A It's -- it's a name that the local 17 refinery has given to something that handles some 18 type of slush or mixture of materials. 19 Q Would you -- if it hadn't been for the 20 Sanborn, would you have just labeled it a pit? 21 A Yes, a pit or a pond. 22 Q A pit or a pond?</p>
<p style="text-align: right;">Page 258</p> <p>1 PROCEEDINGS 2 WHEREUPON, 3 RANDALL GRIP, 4 was called for continued examination, and having 5 been previously remotely sworn by the notary 6 public, was examined and testified further as 7 follows: 8 EXAMINATION BY COUNSEL FOR DEFENDANT (CONTINUED) 9 BY MS. MENEES: 10 Q Good morning, Mr. Grip. I just wanted to 11 ask you whether you had conferred with counsel 12 during our break between yesterday and today? 13 A Oh, we just spoke on the phone, yes. 14 Q Did you discuss the substance of your 15 testimony? 16 A No. 17 Q Just technical issues, then? 18 A Yes. 19 Q Okay. I'd like to go to Houston Eastern 20 States Refinery Number 1. I'm just trying to find 21 the right page of that in Exhibit I. It should be 22 page 108.</p>	<p style="text-align: right;">Page 260</p> <p>1 A Yes. 2 Q What's your understanding of what slush 3 is? 4 A Just, you know, a layman's type term. It 5 tends to indicate a mixture of some type of 6 material. It may be a technical term in their 7 process. It really didn't matter to me. It 8 appears to be a disposal-type feature, as it will 9 continue in other years. Appears to be a 10 disposal. 11 Q And you labeled two oil traps in this 12 photo. Could you describe those for me? 13 A More rectangular, darker in tone than the 14 surroundings, holding liquid or a dark material. 15 Q Are those also disposal features? 16 A Yes. Well, it traps the oil. I would 17 consider that a disposal feature. 18 Q What about the dark area? Could you 19 describe that for me? 20 A That is within the area of a levied -- 21 levy area of a large tank. I'm not certain that 22 that's a product, because the entire thing is</p>

<p style="text-align: right;">Page 261</p> <p>1 dark, but it's holding a dark liquid.</p> <p>2 Q Would you also consider that a disposal</p> <p>3 feature?</p> <p>4 A I'm not as certain on that feature, no.</p> <p>5 Q And what is a blow-down tank?</p> <p>6 A It's part of the process. That's really</p> <p>7 for someone else in the litigation -- someone else</p> <p>8 for the -- someone else in the litigation may be</p> <p>9 of interest in that. It was marked on the</p> <p>10 Sanborn, so I wanted to have it labeled.</p> <p>11 Q So is the blow-down tank a significant</p> <p>12 environmental feature?</p> <p>13 A It's possible that it is. I just wasn't</p> <p>14 certain, so I included it just in case.</p> <p>15 Q Is it a disposal feature?</p> <p>16 A Again, I'm not certain, but I included it</p> <p>17 in case there were some interest in it.</p> <p>18 Q Is there any significance to Lake Pompano</p> <p>19 that you labeled here?</p> <p>20 A It had a label. It was in an area</p> <p>21 adjacent to other disposal features. It doesn't</p> <p>22 have a dark surface, so I'm not sure if that's</p>	<p style="text-align: right;">Page 263</p> <p>1 image quickly, the one before this one. Is the</p> <p>2 dark area that you labeled, is that bermed?</p> <p>3 A By memory, I believe it is bermed, yes.</p> <p>4 It holds -- has a volume of liquid.</p> <p>5 THE REPORTER: I'm sorry. By memory, I</p> <p>6 believe it is bermed, yes. It holds...</p> <p>7 THE WITNESS: A volume of liquid.</p> <p>8 BY MS. MENEES:</p> <p>9 Q Okay. So the liquid is within the berm?</p> <p>10 A Yes.</p> <p>11 Q Okay. I'd like to go to the -- two</p> <p>12 images later from this one. What did you use this</p> <p>13 map for? And I have a higher definition [sic]</p> <p>14 version if you would like to see that.</p> <p>15 A It's just naming of those features that</p> <p>16 were visible on 9/25/43, the map from that date.</p> <p>17 Q Okay. Let's go to the next image. So in</p> <p>18 the description in your expert report, and also in</p> <p>19 this image, you labeled the slush pit as being</p> <p>20 filled in or filling in. How can you tell that is</p> <p>21 occurring in this image?</p> <p>22 A Well, I can tell from looking at the</p>
<p style="text-align: right;">Page 262</p> <p>1 handling process water or if it had a disposal</p> <p>2 purpose, but I included it, and perhaps someone</p> <p>3 else involved in the litigation could shed more</p> <p>4 light on that.</p> <p>5 Q Are there any other significant</p> <p>6 environmental features in this photo that you</p> <p>7 didn't label?</p> <p>8 A Not that I see, no.</p> <p>9 Q Okay. Let's go to the next image. What</p> <p>10 did you use this map for?</p> <p>11 A Just the basic labeling of features that</p> <p>12 were on this map in 6 of '43.</p> <p>13 Q I see traps labeled in this photo. Did</p> <p>14 you -- and you didn't label those in the '38</p> <p>15 image. Or did you? Sorry. Did you label them in</p> <p>16 '38 image?</p> <p>17 A I believe I did, yes. If you want to put</p> <p>18 it side-by-side, I'll confirm that.</p> <p>19 Q So you just used this map to confirm</p> <p>20 features in the refinery and where they were.</p> <p>21 A And the names of those features, yes.</p> <p>22 Q Okay. I wanted to go back to the '38</p>	<p style="text-align: right;">Page 264</p> <p>1 previous date, comparing the same area</p> <p>2 three-dimensionally to this date. I can tell that</p> <p>3 there's been filling in that area. It's no longer</p> <p>4 holding liquid, so the surface area of what's</p> <p>5 holding liquid is greatly reduced on this date.</p> <p>6 So there's been filling between those two dates.</p> <p>7 Q So what you are seeing is just that</p> <p>8 there's more liquid in that area than there was</p> <p>9 before?</p> <p>10 A No. There's solid material that's been</p> <p>11 deposited in the area of the slush pit, and it's</p> <p>12 filled that slush pit so now it no longer is able</p> <p>13 to hold as much liquid. If you do a side-by-side,</p> <p>14 you can tell the footprint of the slush pit is</p> <p>15 much smaller than it is on this date as compared</p> <p>16 to the 1938 photo.</p> <p>17 Q Is the slush pit later and -- more full?</p> <p>18 Do you recall that?</p> <p>19 THE REPORTER: I'm sorry. Is the slush</p> <p>20 pit later...</p> <p>21 MS. MENEES: I can rephrase that.</p> <p>22 BY MS. MENEES:</p>

<p style="text-align: right;">Page 265</p> <p>1 Q In later images is the slush pit more</p> <p>2 full than it is in this image?</p> <p>3 A I have to look. I didn't memorize what</p> <p>4 the process -- how much it was filled. If you</p> <p>5 mean by solid material, I believe it was filled</p> <p>6 more, but we could just continue and look at the</p> <p>7 next date and tell.</p> <p>8 MR. PETIT: And Sydney, I'm going to go</p> <p>9 ahead and object on the record. I mean,</p> <p>10 typically, in a deposition, he's going to have his</p> <p>11 report in front of him. He doesn't have that</p> <p>12 today. And so if he's asking to compare an image,</p> <p>13 you know, I think he ought to be able to do that.</p> <p>14 MS. MENEES: I wanted to finish up with</p> <p>15 this image first and then we can compare.</p> <p>16 BY MS. MENEES:</p> <p>17 Q So when you say is filled with solid</p> <p>18 material, what sort of material would that be?</p> <p>19 A Well, it's a non-liquid material.</p> <p>20 It's -- I can't tell you what it is. It's</p> <p>21 generally medium-toned to light-toned material. I</p> <p>22 can just tell you that they've deposited material</p>	<p style="text-align: right;">Page 267</p> <p>1 this page of the report to page 108?</p> <p>2 MR. PETIT: Danny, if you could put the</p> <p>3 earlier in time on the left, if we're going to</p> <p>4 compare.</p> <p>5 MS. MENEES: And then could we zoom in to</p> <p>6 the labeled area?</p> <p>7 BY MS. MENEES:</p> <p>8 Q Has the dark area changed from the 1938</p> <p>9 image to the 1944 image?</p> <p>10 A Looking at this, it appears to be a</p> <p>11 slightly smaller surface area in the later date,</p> <p>12 but it's in the same location within the same pit</p> <p>13 wall -- I mean, I'm sorry, berm, within the bermed</p> <p>14 area of the tank.</p> <p>15 Q And then this image also shows that the</p> <p>16 slush pit is a smaller surface area; is that</p> <p>17 right, in the '44 image?</p> <p>18 A Yes. You can see -- the scales are</p> <p>19 slightly different on these zooms, but you can</p> <p>20 tell that what was once a liquid surface is now</p> <p>21 filled with a lighter-toned material in the later</p> <p>22 year.</p>
<p style="text-align: right;">Page 266</p> <p>1 in the area; the former liquid area of the slush</p> <p>2 pit is now solid material.</p> <p>3 Q You also labeled debris in this photo on</p> <p>4 the left-hand side. What type of debris is that?</p> <p>5 A Debris would just be multi-sized</p> <p>6 material. I can't definitely -- you know,</p> <p>7 definitively identify what that debris is. It</p> <p>8 could be from tear-downs of interiors of</p> <p>9 buildings, scrap from construction. It could be</p> <p>10 when they're removing, you know, material.</p> <p>11 I just can't give any more detail other</p> <p>12 than that it appears to be like a disposal area</p> <p>13 with the presence of debris.</p> <p>14 Q But it is solid material?</p> <p>15 A I believe it's solid -- more solid</p> <p>16 material, yes. I need to review that</p> <p>17 stereoscopically, but I didn't call it out as a</p> <p>18 liquid, so I'll have to say it's a solid material.</p> <p>19 Q What about the dark area that you labeled</p> <p>20 in this image? How has it changed from the</p> <p>21 1938 -- and we can pull up the '38 image.</p> <p>22 MS. MENEES: Danny, could you compare</p>	<p style="text-align: right;">Page 268</p> <p>1 Q I see you also labeled blue. Is that for</p> <p>2 drainage?</p> <p>3 A Yes. It's drainage and river boundaries.</p> <p>4 Q Is there anything else significant to the</p> <p>5 drainage or the -- or the refinery here?</p> <p>6 A No. I think I did that as a comparison</p> <p>7 on other dates of photography. I can map from one</p> <p>8 photograph or photographic date and compare it to</p> <p>9 another date to see how things have changed or if</p> <p>10 they've stayed the same. So I think -- in my</p> <p>11 analysis, that was one of the things I was doing.</p> <p>12 So I just left that in there on the image.</p> <p>13 Q Okay. Was there any other significant</p> <p>14 environmental feature that you didn't label in the</p> <p>15 '44 photo?</p> <p>16 A Well, there's a dark liquid, it appears</p> <p>17 to be, in Lake Pompano. I didn't point that out.</p> <p>18 THE REPORTER: Mr. Grip, I'm sorry.</p> <p>19 Well, there's a dark...</p> <p>20 THE WITNESS: There's a dark surface on</p> <p>21 Lake Pompano. I didn't point that out. I don't</p> <p>22 know -- I don't recall why, but I mean, that's a</p>

<p style="text-align: right;">Page 269</p> <p>1 possible slick on the surface.</p> <p>2 BY MS. MENEES:</p> <p>3 Q Okay -- go ahead. Oh -- did you have</p> <p>4 anything more to say about the dark liquid on the</p> <p>5 surface at Lake Pompano?</p> <p>6 A No. You know, it's darker than the</p> <p>7 surrounding liquid. It could be a slick. I</p> <p>8 just -- I don't know why it wasn't pointed out</p> <p>9 initially.</p> <p>10 Q So you noticed that as a change between</p> <p>11 the '38 and the '44 photo?</p> <p>12 A Yes, it wasn't on the previous -- the</p> <p>13 1938, but it was on the '44.</p> <p>14 Q And you don't know why it's dark?</p> <p>15 A Well, there's -- it could be floating --</p> <p>16 a lighter oil or something on the surface. I'm</p> <p>17 not certain of that, but -- or it could be a lower</p> <p>18 elevation of the liquid and we're seeing the</p> <p>19 bottom surface under -- like a mud flat. I didn't</p> <p>20 point it out, so it could be that too. I'd need</p> <p>21 to review that one to be certain.</p> <p>22 Q Okay. And you also labeled some oil</p>	<p style="text-align: right;">Page 271</p> <p>1 Q So you don't think that Sanborn</p> <p>2 accurately depicts the size of the slush pit?</p> <p>3 A I haven't done an analysis comparing the</p> <p>4 size of the slush pit to another 1948 image. I</p> <p>5 can just tell you that a photograph would more</p> <p>6 accurately display something like that rather than</p> <p>7 a sketch of a -- a pit on a map.</p> <p>8 Q Okay. Let's go to page 113. So in this</p> <p>9 image, you also labeled a pit. Is that new from</p> <p>10 the previous image?</p> <p>11 A I believe it is, but we could do a</p> <p>12 comparison.</p> <p>13 Q Okay.</p> <p>14 MS. MENEES: Let's compare this to</p> <p>15 page 111, and I believe -- could we do the 111 on</p> <p>16 the left and 113 on the right?</p> <p>17 BY MS. MENEES:</p> <p>18 Q So the '44 aerial is on the left and the</p> <p>19 '53 aerial is on the right. You labeled a pit in</p> <p>20 the 1953 aerial that is not labeled as a pit on</p> <p>21 the '44 aerial. Is that new?</p> <p>22 A It does appear to be new.</p>
<p style="text-align: right;">Page 270</p> <p>1 traps in the '44 image that weren't in the '38</p> <p>2 image. Are those also pits?</p> <p>3 A Yeah. I would consider it a -- I would</p> <p>4 consider that a disposal-type feature.</p> <p>5 Q Okay. Let's move on to page 112. How</p> <p>6 did you date this map?</p> <p>7 A It would have to be from the name of the</p> <p>8 file or whoever, I guess, provided that to us.</p> <p>9 The name of the file, or maybe there's a scan</p> <p>10 included with it that gave it a date.</p> <p>11 Q Comparing this to -- sorry. Could we</p> <p>12 compare this page to the previous image? So in</p> <p>13 the previous image you have the slush pit that's</p> <p>14 being filled in and, in this map, which is labeled</p> <p>15 1948 in your report, the slush pit looks bigger.</p> <p>16 Do you know why that is?</p> <p>17 A No, I don't know why that is, but I would</p> <p>18 say that Sanborn company is not necessarily</p> <p>19 interested in the exact size of a pit or a pond.</p> <p>20 They're more interested in structures. But, you</p> <p>21 know, it's just whoever produced that map on that</p> <p>22 date, that's how they delineated the slush pit.</p>	<p style="text-align: right;">Page 272</p> <p>1 Q And would you consider that to be a</p> <p>2 disposal feature?</p> <p>3 A Yes.</p> <p>4 Q And the oil trap on the Sanborn, is</p> <p>5 that -- or, sorry. You labeled an oil trap,</p> <p>6 parentheses, Sanborn on the 1953 image. Has that</p> <p>7 changed from the 1944 image?</p> <p>8 A Well, there's two oil traps labeled from</p> <p>9 the Sanborn on the earlier date. One of them has</p> <p>10 been filled, as I've noted on my image, in the</p> <p>11 later year.</p> <p>12 Q And what about the other oil trap?</p> <p>13 A That one continues to be open.</p> <p>14 Q Has it expanded in size?</p> <p>15 A No. It appears to be the same.</p> <p>16 Q But is it still in use?</p> <p>17 A Well, it's still there. I would have to</p> <p>18 say -- I couldn't tell you it's not being used,</p> <p>19 because it exists, so I would say it's probably...</p> <p>20 Q You would say it's probably...</p> <p>21 A It's still there, so it's still usable as</p> <p>22 an oil trap in the later year.</p>

<p style="text-align: right;">Page 273</p> <p>1 Q You labeled Lake Pompano with skimmers in</p> <p>2 the 1953 photo. Are those oil-water skimmers?</p> <p>3 A Yes. I would say that's what a skimmer</p> <p>4 would be on a refinery site.</p> <p>5 Q And then the area you labeled dark area</p> <p>6 in the 1944 photo, how has that changed in the</p> <p>7 1953 photo?</p> <p>8 A I don't -- I didn't label it as a dark</p> <p>9 area. Maybe it's dryer on that date, the later</p> <p>10 date.</p> <p>11 Q It's dryer? So it's still -- I guess, is</p> <p>12 there any other change that you've seen? Are</p> <p>13 there still berms there?</p> <p>14 A Well, I didn't annotate it, but I see the</p> <p>15 signature of a berm on the monoscopic image so I</p> <p>16 would have to say it's still there, yes.</p> <p>17 Q Okay. Let's move to the next photo. So</p> <p>18 this is labeled October 8th, 1953. I see you</p> <p>19 labeled the oil trap in this image as well. Is it</p> <p>20 still open?</p> <p>21 A Yes.</p> <p>22 Q And so it's still in use, right?</p>	<p style="text-align: right;">Page 275</p> <p>1 disposal in all of the images that we discussed</p> <p>2 for this refinery, right?</p> <p>3 A Yes.</p> <p>4 Q Did you note any other disposal-type</p> <p>5 features for this refinery, Eastern States 1?</p> <p>6 A Just the ones that we discussed.</p> <p>7 Q Okay. So you didn't see any evidence of</p> <p>8 spills?</p> <p>9 A Well, the pits themselves are evidence</p> <p>10 that they're handling spills. I don't see the</p> <p>11 actual spills. I haven't annotated something like</p> <p>12 that, but that's the kind of thing that these pits</p> <p>13 handled, waste from the refinery.</p> <p>14 Q But you didn't see any actual spills,</p> <p>15 right?</p> <p>16 A No, but I see the evidence of them</p> <p>17 handling them.</p> <p>18 Q Do you think Sanborn maps are reliable?</p> <p>19 A Well, it really depends on what you're</p> <p>20 using them for. They're reliable in some ways; in</p> <p>21 other ways they're less reliable. I mean, they</p> <p>22 show that things are there. They -- names for</p>
<p style="text-align: right;">Page 274</p> <p>1 A Well, it's still usable. I believe</p> <p>2 it's -- I couldn't say it's not being used.</p> <p>3 Q And that -- you would consider that a</p> <p>4 disposal feature?</p> <p>5 A Yes.</p> <p>6 Q Okay. Are there any other significant</p> <p>7 environmental features besides the ones that</p> <p>8 you've labeled in this photo?</p> <p>9 A No, I don't believe so. That's it.</p> <p>10 Q Okay. So there were pits in all of the</p> <p>11 aerial images that you labeled from 1938 until</p> <p>12 this image. So would you say that was a</p> <p>13 consistent disposal feature throughout those time</p> <p>14 periods?</p> <p>15 A Well, that is a feature. These pits</p> <p>16 changed. You know, there was filling of a pit and</p> <p>17 an opening of other pits and closing of pits which</p> <p>18 I show here, a pit being filled. So there are</p> <p>19 pits, but they -- you know, they're changing.</p> <p>20 Some of them stayed there through all the years,</p> <p>21 but others changed.</p> <p>22 Q But you testified that the pits were for</p>	<p style="text-align: right;">Page 276</p> <p>1 them. But other people may call a feature a</p> <p>2 slightly different name on the facility.</p> <p>3 Generally, I'd say they get the names from the</p> <p>4 facility and they name things properly. Some of</p> <p>5 the dates may vary, and they don't always include</p> <p>6 everything that's out there.</p> <p>7 Q But you incorporated their labels into</p> <p>8 your own aerial images. So you adopted them as</p> <p>9 your own label, right?</p> <p>10 A Yes. And I -- I explained where the name</p> <p>11 of that feature came from. If I didn't have the</p> <p>12 Sanborn, I -- maybe I would call it a pit or a</p> <p>13 separator instead of an oil trap.</p> <p>14 Q So the labels that you placed that have</p> <p>15 Sanborn in parentheses, you thought those labels</p> <p>16 were reliable enough to incorporate them into your</p> <p>17 interpretation?</p> <p>18 A Well, I used the exact name of the</p> <p>19 feature and I explained to the viewer of the image</p> <p>20 that that name came from the Sanborn map. So I</p> <p>21 considered it reliable in that it's from the</p> <p>22 Sanborn and I wanted the reader of the report to</p>

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<p>1 know that that's where the name of that feature 2 came from, from the Sanborn. 3 Q Okay. Let's go to the next refinery. So 4 that's Eastern States 2. We can go to image 5 100 -- page 117. Page 119. This image is labeled 6 December -- sorry. This image is labeled 7 October 25th, 1938. Are there any significant 8 environmental features in this photo? 9 A No. It's just a wooded area with some 10 pathways. 11 Q Okay. Could we go to the next image. 12 Why did you include this map -- or this plan? 13 A It shows a map that labels a separator, 14 where that's going to be and where the flare stack 15 is going to be, and the general footprint of the 16 refinery. 17 Q Did you incorporate this map into your 18 analysis of aerial imagery? 19 A With the naming of the features, yes. 20 THE REPORTER: I'm sorry. Could you 21 repeat your answer from the beginning. 22 THE WITNESS: With the naming of the</p>	<p>1 construction. There may be a functioning section 2 of the refinery. 3 Q How certain are you that there is or is 4 not a functioning section of the refinery? 5 A I'm not certain there's a functioning 6 section, but there would be someone else that may 7 shed more light on that. I can tell you there's a 8 lot of tanks there, there's a lot of structure, 9 and there's a visible oil trap and separator on 10 that date. 11 Q And then going to the next image, it's 12 built more in this image, right? 13 A There's been change in the area that 14 we're looking at, yes. I mean, it could be just 15 another unit that they're viewing, but I still see 16 a lot of the same features there, but there are 17 more features on this image than were on the 18 previous image a few months before. 19 Q And this is just plant 2 of Eastern 20 States that we're looking at right now. I just 21 wanted to clarify that for the record. 22 So let's move to the next image. Does</p>
Page 278	Page 280
<p>1 features, but that's it. 2 BY MS. MENEES: 3 Q Could we go to the next image. Why did 4 you include this image? 5 A Well, I had the image and I wanted to 6 include it with the possibility that someone else 7 would have an interest in it. Also, I can see the 8 location of the oil trap and separator on the 9 right side of the frame. 10 But this is basically a series of -- the 11 first of a series of construction photos taken 12 from the ground or a low surface to show 13 progression of the refinery. 14 Q Okay. Is the refinery operational at 15 this time? Can you tell? 16 A A lot of features are there. I'd say 17 there's probably some processing that's going on, 18 but I would have to rely on another expert to -- 19 to say what's going on as of that date. 20 Q But it's under construction in this 21 image, right? 22 A At least parts of it are under</p>	<p>1 this image look different to you from the previous 2 image? 3 A I'd have to compare them side-by-side to 4 point out change. But I still see the oil trap 5 and separator, and I've labeled that on the image. 6 Q Okay. 7 MS. MENEES: Let's -- can we compare 121 8 on the left to 123 on the right? 9 BY MS. MENEES: 10 Q So on the left, this image was taken in 11 September 1943. And on the right, it was taken in 12 December. Do you see changes in the structures at 13 the refinery? 14 A Yes. 15 Q Would you consider those construction 16 activities? 17 A Yes. 18 Q And would you -- is the oil separator -- 19 oil trap and separator an engineered unit? 20 A What do you mean by engineered unit? 21 Q Is it complete in these photos? 22 A Well, I can see the location. It exists.</p>

<p style="text-align: right;">Page 281</p> <p>1 I can see the bays. If it's there, it could be 2 used. 3 Q Is it a dug pit or is it constructed out 4 of different materials? 5 A It's not a dug pit, no. 6 Q Can you tell what it's made out of? 7 A Well, it's straighter walls. It could be 8 a concrete wall. But there's probably documents 9 on how that was constructed that I rely on. 10 Q Okay. Let's move to page 124. So this 11 is labeled April 3rd, 1944. It's plant 2 of 12 Eastern States. So there's a sludge pit labeled 13 in this image. I haven't seen that notation 14 before. What does that mean? 15 A Well, it's a pit that's handling sludge 16 from the facility. 17 Q And is sludge different from other 18 disposal materials? 19 A Well, it's not -- it is a disposal 20 material. I mean, it's a -- it's just a 21 descriptor of what that pit typically handles, is 22 sludge from the facility, a disposal.</p>	<p style="text-align: right;">Page 283</p> <p>1 likely is, but I'd have to review side-by-side. I 2 would like to flip my pages back and forth on my 3 report, but I don't have that luxury. 4 Q You also labeled a waste disposal pit. 5 Did you just add the modifier "waste disposal" 6 because of the later map or did you actually see 7 anything that would cause you to label it 8 specifically waste disposal? 9 A Well, it's a pit. I would consider a pit 10 a waste disposal feature. I just specified waste 11 disposal pit specifically because it was labeled 12 as that on the map in 1947. It's clearly there on 13 this date of photography in 1944. 14 Q Can you tell what it's constructed out 15 of? 16 A It appears to be earthen. It's not 17 engineered like the oil trap and separator nearby. 18 And it's a new feature. 19 Q How can you tell it's earthen? 20 A Well, it's light in tone. It's in an 21 area off of the -- the site, and the berms appear 22 to be earthen. It's not sharp edges like you</p>
<p style="text-align: right;">Page 282</p> <p>1 Q If it hadn't been labeled sludge pit, 2 would you have simply labeled it a pit? 3 A Yes. 4 Q Okay. So the only reason why you added 5 "sludge" in front of it is because it was labeled 6 that way on the February 21, 1947 map? 7 A Yeah. I just -- I would just call it a 8 pit or otherwise, not because it was called a 9 sludge pit. That may be in some documentation of 10 the facility that mentions the sludge pit. So I 11 want -- in case another reader of the report 12 wanted to know where that was, I labeled it. 13 Q Can you tell what that pit is constructed 14 out of? 15 A I'd have to review that, but I believe 16 that was an earthen pit, from my memory. 17 Q Is the oil trap and separator the same 18 oil trap and separator that you labeled in the 19 construction images? 20 A I'd have to review that. I'm not sure as 21 I sit here today. We'd have to go back and -- I 22 didn't note that that had moved. So I'd say it</p>	<p style="text-align: right;">Page 284</p> <p>1 would see on a concrete or engineered structure 2 with wooden walls or concrete walls. 3 Q Can you tell whether it's lined in any 4 way? 5 A Well, it's filled with liquid, but in 6 1944, I wouldn't expect it to be lined. 7 Q What about the sludge pit? How could you 8 tell that was earthen? 9 A That's one I need to -- I'd have to 10 review to be certain, but it's -- maybe -- could 11 you zoom in on that area for me a little bit? I 12 didn't memorize each of these features. 13 Yeah, that's good. You know, I'm just 14 not certain on the sludge pit. As I sit here 15 today, I just -- just looking at the mono, I don't 16 remember. That wasn't part of my analysis, if it 17 was earthen or not. Some it's more obvious than 18 others, but this one is not quite as obvious. I 19 think it's earthen. 20 Q How certain are you that it's earthen? 21 A More likely than not. 22 Q Even though it looks like it has solid</p>

<p style="text-align: right;">Page 285</p> <p>1 edges?</p> <p>2 A It looks like they're casting a shadow.</p> <p>3 I'm just not certain. I'd like to review the</p> <p>4 stereo to be a hundred percent on that. The area</p> <p>5 around it doesn't appear to be concrete, but...</p> <p>6 Q Okay. Are there any other significant</p> <p>7 environmental features in this photo that you</p> <p>8 didn't label?</p> <p>9 A Well, we didn't discuss it, but there's</p> <p>10 the area to the southeast where I've got that --</p> <p>11 it's kind of an undeveloped area, light in tone,</p> <p>12 and it's got dark areas and liquid within lower</p> <p>13 areas.</p> <p>14 Q Can you tell what the dark area or the</p> <p>15 dark liquid is?</p> <p>16 A It's darker than most areas around this.</p> <p>17 You know, it could be facility waste. It looks</p> <p>18 like a little dump area. And in a later year I</p> <p>19 see them handling tank bottoms. I don't know if</p> <p>20 that's possibly associated with tank bottoms, with</p> <p>21 the tanks down there or not, but it's a</p> <p>22 possibility.</p>	<p style="text-align: right;">Page 287</p> <p>1 that area looked like a dump just now. Would you</p> <p>2 say that is continuing in this image?</p> <p>3 A Well, it's been -- part of that dump has</p> <p>4 been redeveloped, but there are still areas that</p> <p>5 are possibly associated with waste.</p> <p>6 Q I'm going to annotate something in blue.</p> <p>7 What is this dark area?</p> <p>8 A That's liquid within a bermed area of the</p> <p>9 tank, of a tank.</p> <p>10 Q And you didn't label it in this image.</p> <p>11 Why?</p> <p>12 A Well, it doesn't appear to be associated</p> <p>13 with disposal. It's just within the berm that</p> <p>14 would contain spills from that tank.</p> <p>15 Q So it could be associated with a spill?</p> <p>16 A Well, it's holding liquid. I wouldn't</p> <p>17 say that's a spill. It's just the volume of the</p> <p>18 berm is holding liquid. I didn't think that was a</p> <p>19 spill.</p> <p>20 Q I guess I'm just confused about the</p> <p>21 consistency, because you labeled dark liquid or</p> <p>22 dark areas in other parts of the photos, but not</p>
<p style="text-align: right;">Page 286</p> <p>1 Q Okay. Let's go to the next image. So</p> <p>2 this map is labeled 2/21/1947. Is there anything</p> <p>3 useful about this map besides the names of the</p> <p>4 features that you added to your images?</p> <p>5 A Well, the map is from '47. I confirmed</p> <p>6 that I can see the location of those features on</p> <p>7 the actual photograph from 1944. So it agrees</p> <p>8 with what I'm seeing. Mainly, it was for the</p> <p>9 names, though.</p> <p>10 Q Okay. Let's move to the next image. So</p> <p>11 you labeled two items, in the lower -- in the</p> <p>12 middle of the photo, pond.</p> <p>13 A Yes.</p> <p>14 Q How did you determine those were ponds?</p> <p>15 A Pond -- it could still be a disposal</p> <p>16 feature. It's generally larger and would likely</p> <p>17 handle more of a liquid-type waste material. It</p> <p>18 could also be part of a process on the facility.</p> <p>19 So I was less certain on those. They're dark in</p> <p>20 tone. They're large. They weren't there before.</p> <p>21 So I labeled them.</p> <p>22 Q For the previous image, 1944, you said</p>	<p style="text-align: right;">Page 288</p> <p>1 this one.</p> <p>2 A Well --</p> <p>3 Q Go ahead.</p> <p>4 A In this particular case, what you've</p> <p>5 circled, it's a berm that's holding liquid that</p> <p>6 would contain a spill or rupture of that tank.</p> <p>7 It's not a feature just dedicated to capturing</p> <p>8 liquid, like they would take it from one site,</p> <p>9 like a spill or a leak, and clean up the spill or</p> <p>10 leak and deposit it in this location for disposal.</p> <p>11 It's there to prevent the release into the</p> <p>12 environment.</p> <p>13 So these features that I'm pointing out,</p> <p>14 the ponds, they're not there to capture a leaking</p> <p>15 tank or anything like that. They were constructed</p> <p>16 to contain liquid that was placed there or --</p> <p>17 liquids or sludges or waste. So that's more of a</p> <p>18 disposal-type feature, whereas you're pointing out</p> <p>19 an area that's just holding liquid for -- keeping</p> <p>20 it from release into the environment, not really a</p> <p>21 disposal feature.</p> <p>22 Q And then you also labeled a pit right</p>

<p style="text-align: right;">Page 289</p> <p>1 next to that bermed area. Is that new?</p> <p>2 A Yes. This is one of the rare occasions</p> <p>3 that you see how facilities handle tank bottoms.</p> <p>4 I believe -- you know the tanks lowered their --</p> <p>5 they're making some change in that area. They've</p> <p>6 got a small pit there where, when they clean out</p> <p>7 the tank, they -- it's common practice they'll</p> <p>8 dump some of the tank bottoms into a pit and then</p> <p>9 cover the pit.</p> <p>10 So you -- I've got a subsequent</p> <p>11 photograph that shows that pit is covered and the</p> <p>12 tank lid is elevated again, so I believe that's</p> <p>13 what we're catching right there.</p> <p>14 Q Okay. So that would be occurring --</p> <p>15 what's the time frame that it would take for a</p> <p>16 refinery to put the tank bottoms in that pit?</p> <p>17 Like, are we talking about months or days?</p> <p>18 A It just -- it depends on the situation.</p> <p>19 It can be quick. I mean, it's -- it's at least</p> <p>20 a -- well, I can't give you an exact time. I</p> <p>21 don't know how long it takes them to clean out a</p> <p>22 tank. It depends on the size of the tank and, you</p>	<p style="text-align: right;">Page 291</p> <p>1 Q Okay. Let's go to the next -- sorry. I</p> <p>2 just realized there's one more image for Eastern</p> <p>3 States.</p> <p>4 MR. HAMBRICK: Do I need to mark this,</p> <p>5 Sydney?</p> <p>6 MS. MENEES: Oh, yes, please mark that.</p> <p>7 (Deposition Exhibit Number 13 was marked</p> <p>8 for identification.)</p> <p>9 MR. HAMBRICK: It's 13. It's in there</p> <p>10 now.</p> <p>11 MS. MENEES: Okay.</p> <p>12 BY MS. MENEES:</p> <p>13 Q Okay. I don't need to -- it's my</p> <p>14 drawing, so I can confirm that.</p> <p>15 Okay. So let's go to page 127. So in</p> <p>16 this image, you noted that the pit that we</p> <p>17 discussed was covered. And this image is from</p> <p>18 less than six months after the previous image?</p> <p>19 A Yes.</p> <p>20 Q So it didn't take that much time for the</p> <p>21 pit to be covered here; is that right?</p> <p>22 A Right.</p>
<p style="text-align: right;">Page 290</p> <p>1 know, too many factors for me to estimate.</p> <p>2 But this is one occasion where we see it.</p> <p>3 And you'll see in a subsequent year that that pit</p> <p>4 is no longer visible and the tank is back in</p> <p>5 operation.</p> <p>6 Q Did you see any evidence of that sort of</p> <p>7 activity in the 1944 image?</p> <p>8 A I don't believe so, but this is an</p> <p>9 example of how they -- the practice was on some of</p> <p>10 these sites. So I didn't see it specifically, but</p> <p>11 that's -- that's an example of how this is handled</p> <p>12 at these facilities.</p> <p>13 Q Did you see any evidence at Houston</p> <p>14 Eastern States plant 2 of any spills in general?</p> <p>15 A Well, just the fact that there's pits</p> <p>16 there that handle the waste. And I would consider</p> <p>17 a spill to be one of the waste streams for these</p> <p>18 facilities. I didn't see the actual spill</p> <p>19 necessarily, or the leak.</p> <p>20 Q Was there any other evidence of waste</p> <p>21 disposal that we didn't discuss?</p> <p>22 A No, I think we covered them.</p>	<p style="text-align: right;">Page 292</p> <p>1 Q And do you see any other waste disposal</p> <p>2 features in this photo that are in use?</p> <p>3 A Well, I still see the waste disposal pit</p> <p>4 and the oil trap and separator, sludge pit. As I</p> <p>5 previously pointed out, the two ponds to the --</p> <p>6 further to the south, along the ship channel.</p> <p>7 Q And those are all still in use?</p> <p>8 A They still exist. I mean, they could</p> <p>9 still be used. They're holding some type of</p> <p>10 material.</p> <p>11 THE REPORTER: I'm sorry. They still</p> <p>12 exist. I mean, they could still be used...</p> <p>13 THE WITNESS: And they're still holding</p> <p>14 material.</p> <p>15 MS. MENEES: Okay. I think now would be</p> <p>16 a good time to break considering, Will, your</p> <p>17 hearing. So can we go off the record?</p> <p>18 MR. PETIT: We can go off the record.</p> <p>19 (Whereupon, a short recess was taken.)</p> <p>20 BY MS. MENEES:</p> <p>21 Q Okay. Can we go to page 139. So we're</p> <p>22 now looking at Mount Pleasant, Michigan. This is</p>

<p style="text-align: right;">Page 293</p> <p>1 dated July 5th, 1938. Do you see any waste</p> <p>2 disposal features in this image?</p> <p>3 A Yes, I have identified two pits.</p> <p>4 Q Can you tell what those pits are</p> <p>5 constructed out of?</p> <p>6 A They appear to be just earthen material</p> <p>7 north of the site.</p> <p>8 Q And you can't tell whether they're lined?</p> <p>9 A I don't see below the surface, but I</p> <p>10 would expect them to be unlined in the '30s.</p> <p>11 Q Okay. What about that light-toned area</p> <p>12 up above? What can you tell me about that?</p> <p>13 A Well, I see a pathway leading from the</p> <p>14 facility up to that area to the north. It looks</p> <p>15 like it's been prepared -- you know, it's</p> <p>16 obviously been mowed or graded so the light tone</p> <p>17 stands out, but it's -- as I've just stated, it</p> <p>18 appears to be unused.</p> <p>19 Q Okay. So there's no disposal features</p> <p>20 about the light-toned area?</p> <p>21 A No, not that I see.</p> <p>22 Q You also labeled two areas dark liquid in</p>	<p style="text-align: right;">Page 295</p> <p>1 A It was either the name of a scan that we</p> <p>2 had acquired or maybe another file associated with</p> <p>3 that map.</p> <p>4 Q You labeled the refuse pit in the Sanborn</p> <p>5 map. Did you see anything else significant in the</p> <p>6 map?</p> <p>7 A Just that the map shows that the refinery</p> <p>8 exists and that the name of that feature in that</p> <p>9 area is a refuse pit.</p> <p>10 Q Okay. Let's go to the next image. So</p> <p>11 this is labeled July 27th, 1952. You labeled an</p> <p>12 area a laydown area. What do you mean by that?</p> <p>13 A A laydown area is -- it's a little</p> <p>14 different than a disposal area. Like with debris,</p> <p>15 like they're just throwing debris out in -- scrap</p> <p>16 metal and things like that. Laydown is a little</p> <p>17 bit more organized. And they have pipes laid down</p> <p>18 for storage in the surface -- on the surface of</p> <p>19 that area for access and use possibly later.</p> <p>20 But there is a pit adjacent to that area</p> <p>21 so it could be, you know, broken equipment or</p> <p>22 something like that in the area.</p>
<p style="text-align: right;">Page 294</p> <p>1 this photo. Do you know what that liquid is or</p> <p>2 where it's coming from?</p> <p>3 A Well, the northern-most dark liquid is --</p> <p>4 it's within the berm of a tank. It doesn't appear</p> <p>5 to be a disposal feature. I didn't see it in</p> <p>6 later years. I didn't know if that's a spill or</p> <p>7 if that's just a precipitation event. I'm not</p> <p>8 certain on that one.</p> <p>9 The area to the south, it's a dark liquid</p> <p>10 and it's not within the boundaries of the tank</p> <p>11 levy area to the east -- or to the west. It's</p> <p>12 just a dark area. I thought it was curious, but I</p> <p>13 wasn't -- I couldn't definitively call it a pit.</p> <p>14 Q Okay. So it could be a pit, but you're</p> <p>15 not sure?</p> <p>16 A Right.</p> <p>17 Q Are there any other significant</p> <p>18 environmental features that you didn't label in</p> <p>19 this photo?</p> <p>20 A No. I don't believe so.</p> <p>21 Q Can we go to the next image. How did you</p> <p>22 date this Sanborn map?</p>	<p style="text-align: right;">Page 296</p> <p>1 Q So I guess, specifically, how is a</p> <p>2 laydown area different than a disposal area?</p> <p>3 A Laydown area has an element of possibly</p> <p>4 being just a storage area for equipment that's</p> <p>5 being used in the facility. A disposal area would</p> <p>6 be just trash that they throw out there. It's</p> <p>7 more haphazard. This is a more organized area of</p> <p>8 storage.</p> <p>9 Q What indicates organization to you?</p> <p>10 A Just the pattern of the equipment or</p> <p>11 whatever objects are placed there. If it's more</p> <p>12 organized, more -- you know --</p> <p>13 THE REPORTER: I'm sorry. If it's more</p> <p>14 organized...</p> <p>15 THE WITNESS: If it's more organized as</p> <p>16 compared to just piles of material pushed out into</p> <p>17 the area.</p> <p>18 BY MS. MENEES:</p> <p>19 Q And you can't tell what the material is</p> <p>20 in this laydown area?</p> <p>21 A No. I couldn't.</p> <p>22 Q You also labeled dark liquid in this</p>

<p style="text-align: right;">Page 297</p> <p>1 image.</p> <p>2 MS. MENEES: And could we compare this</p> <p>3 page to 139? Put 139 on the left and 141 on the</p> <p>4 right.</p> <p>5 BY MS. MENEES:</p> <p>6 Q So the area that was labeled light-toned</p> <p>7 area in the 1938 photo, what happened to that</p> <p>8 area?</p> <p>9 A Well, it's been redeveloped into the</p> <p>10 laydown yard.</p> <p>11 Q And what about the area with dark liquid?</p> <p>12 What was that area before?</p> <p>13 A It was an old oxbow of the river that</p> <p>14 goes through there. So it's a low area to the</p> <p>15 north of the facility.</p> <p>16 Q So the dark liquid area is now the river?</p> <p>17 A Well, they've -- they've done a lot of</p> <p>18 excavation between these two dates, excavation and</p> <p>19 they built a berm in that area to contain the</p> <p>20 liquids that are captured within that big area now</p> <p>21 that's seen as a liquid surface. So they're</p> <p>22 obviously trying to keep flow from the facility</p>	<p style="text-align: right;">Page 299</p> <p>1 but I'd have to look at it --</p> <p>2 THE REPORTER: I'm sorry. It appears to</p> <p>3 be...</p> <p>4 THE WITNESS: Earthen, by my memory, but</p> <p>5 I'd have to look at it more clearly to tell for</p> <p>6 certain.</p> <p>7 BY MS. MENEES:</p> <p>8 Q And you can't tell whether it's lined?</p> <p>9 A I wouldn't expect it to be lined on this</p> <p>10 date. I think this is the early '50s. But I</p> <p>11 can't see the surface below.</p> <p>12 Q And the dark area just above the refuse</p> <p>13 pit, what do you think that is?</p> <p>14 A Well, the topography slopes down towards</p> <p>15 the water surface in that area. That could be a</p> <p>16 flow feature. It could be a spill or it could</p> <p>17 just be a lower wet area in that area. That shows</p> <p>18 how the refinery flow would go down into that</p> <p>19 lower area that's contained by the berm.</p> <p>20 Q And these pits look like they're in use</p> <p>21 in this image?</p> <p>22 A Well, on both images that I'm looking at,</p>
<p style="text-align: right;">Page 298</p> <p>1 from getting into the river.</p> <p>2 Q What about the area that you labeled</p> <p>3 possible pit? Why aren't you sure whether that's</p> <p>4 a pit?</p> <p>5 A It's just very small. I just wasn't as</p> <p>6 certain about what that was in the center. It</p> <p>7 wasn't quite as defined boundaries.</p> <p>8 Q And what about the refuse pit? What can</p> <p>9 you tell me about that in this image?</p> <p>10 A Which image? There's two images. Well,</p> <p>11 I can tell you, in the '38, there were pits in</p> <p>12 that area, but they were larger. And it looks</p> <p>13 like -- the scales are different on these two</p> <p>14 images, but the pit is much smaller on the later</p> <p>15 year. I don't have the dates visible to me. But</p> <p>16 it's a roughly rectangular surface, dark, adjacent</p> <p>17 to a pit, and just on the banks of where the</p> <p>18 topography slopes down towards the newly formed</p> <p>19 pond by that bermed area to the east.</p> <p>20 Q Can you tell what the refuse pit is</p> <p>21 constructed out of?</p> <p>22 A It appears to be earthen, from my memory,</p>	<p style="text-align: right;">Page 300</p> <p>1 there's two pits in the area that are later going</p> <p>2 to be just one pit that's called a refuse pit by</p> <p>3 the Sanborn map. And then there's one possible</p> <p>4 pit. It's obviously there. They're open on all</p> <p>5 the dates so I would expect them to be usable.</p> <p>6 Q Okay. Let's move to the next -- or,</p> <p>7 sorry. On this image, the 1952 image on the</p> <p>8 right, do you see any other environmental features</p> <p>9 that you didn't label?</p> <p>10 A No.</p> <p>11 Q Okay. Let's move to the next image. So</p> <p>12 this image is labeled April 11th, 1954. It looks</p> <p>13 like all of the -- there are three pits that you</p> <p>14 labeled in this image that are consistent from the</p> <p>15 previous image. Would you agree with that?</p> <p>16 A Yes. I don't remember the date of the</p> <p>17 previous image, but the pits are still there that</p> <p>18 I identified on the previous date.</p> <p>19 Q The previous image was 1952.</p> <p>20 A Okay.</p> <p>21 Q Has the dark liquid that you labeled in</p> <p>22 this image changed at all?</p>

<p style="text-align: right;">Page 301</p> <p>1 A It's slightly -- in the big bermed area, 2 or the pond created by the bermed area, it's 3 slightly more area there. The area to the east -- 4 or to the west within that same area appears to be 5 more of a mud flat, the low -- low liquid level. 6 Q An area labeled dark area is more of a 7 mud flat? Is that what you just said? 8 A No, the area to the west of it. The -- 9 Q Could you mark that for me? 10 THE REPORTER: I'm sorry. I didn't get 11 your question. 12 MS. MENEES: I just asked Mr. Grip 13 whether he could mark the area that he was just 14 talking about. 15 THE WITNESS: (Complies.) 16 BY MS. MENEES: 17 Q So that area with the red arrow is a mud 18 flat? 19 A Yeah. It's lower -- yes. 20 Q And the area to the right of the red 21 arrow is waste? 22 A Well, it's liquid pooling in that area.</p>	<p style="text-align: right;">Page 303</p> <p>1 Thanks. So this is from June -- oh, sorry. This 2 is -- 3 MR. PETIT: Is this the same one that you 4 just looked at? 5 MS. MENEES: Yeah, this is the same one. 6 BY MS. MENEES: 7 Q Let's move to page 145. This is Port 8 Arthur, Texas. And can we actually go to 146? 9 This is dated 11/28/1938. And you labeled a 10 number of features in this photo. Are the red 11 dots that you labeled in this photo pits? 12 A Yes. The site is very large, and 13 pointing those features out was a little bit 14 difficult because basically the leader would 15 obscure the entire thing. So I actually mapped it 16 on the soft copy workstation, the boundaries of 17 it -- 18 THE REPORTER: I'm sorry. Actually 19 mapped it on the... 20 THE WITNESS: Soft copy workstation. 21 That's the digital photogrammetric workstation. 22 So I actually mapped the boundaries of</p>
<p style="text-align: right;">Page 302</p> <p>1 Q Do you have any observations about what 2 that liquid might be? 3 A Well, it's dark. It's in an area where 4 the refinery is -- is taking pains to keep from 5 flowing into the river. You know, it could be 6 some waste or runoff from the facility that's 7 captured there. I mean, the topography certainly 8 flows that way. 9 Q Okay. So those -- well, let's see. It 10 looks like there might be one more image for this 11 site. 12 MS. MENEES: Can we go -- or, Danny, 13 could you capture this as an exhibit? 14 MR. HAMBRICK: This is going to be 14. 15 (Deposition Exhibit Number 14 was marked 16 for identification.) 17 BY MS. MENEES: 18 Q Okay. I'm showing you what's been marked 19 as Exhibit 14, Mr. Grip. Does this accurately 20 reflect your annotation on this photo? 21 A Yes. 22 Q Okay. Let's go to 142 of this document.</p>	<p style="text-align: right;">Page 304</p> <p>1 the pits that were seen out in that area and then 2 turned them on on the GIS so you could see the 3 location more clearly without the leaders. 4 BY MS. MENEES: 5 Q You labeled industrial waste ponds in 6 this image. How did you determine they were waste 7 ponds? 8 A Well, the labeling that's white with the 9 halo -- or the black text with the white halos 10 came from USGS quad sheet. I think if you go back 11 one page to 145, you'll see that it's actually 12 labeled as such on that quad map. 13 And those are just for reference in 14 describing the area, the salt bayou -- the names 15 of the bayous and the highway in that being 16 industrial waste ponds. 17 Q Do you think it's reliable that they're 18 labeled as waste ponds in the USGS map? 19 A You know, I didn't use the USGS 20 characterization of that pond as waste to make any 21 of my analysis. I mean... 22 Q What about -- what can you tell me about</p>

<p style="text-align: right;">Page 305</p> <p>1 the pits in this image? Can you tell me what 2 they're constructed out of?</p> <p>3 A From this image, none of these that -- 4 really stand out to me as being an engineered-type 5 pit. I would say they're all, in the '30s, the 6 earthen-type pits just kind of dug down and pushed 7 up boundaries around them. They're a smaller pit.</p> <p>8 Q And you can't tell whether they're lined?</p> <p>9 A As I said before, I can't see below the 10 surface, but in the '30s, I wouldn't expect them 11 to be lined.</p> <p>12 Q What about the dark liquid that you see 13 in this image? Can you tell me about that?</p> <p>14 A Well, it's -- that -- let's see. That's 15 to the -- there's two dark liquid areas. They're 16 both in an area kind of set off from the site. 17 One is bermed from -- obviously bermed to handle a 18 liquid. It's not -- the bermed has not been 19 placed there to capture spills or leaks from a 20 tankage or anything like that. So it didn't 21 appear to be a pit, but that larger bermed area 22 with dark liquid could be a disposal feature.</p>	<p style="text-align: right;">Page 307</p> <p>1 this image is dated March 25th, 1947. And you 2 also labeled many features in this photo. Do the 3 red dots, again, indicate pits?</p> <p>4 A Yes. They indicate pits that are very 5 small, so I wanted to highlight them more so it's 6 more obvious to you. I also point out pits that 7 have been removed, or whenever a pit is newly 8 added that's small, I labeled that.</p> <p>9 So I labeled -- I didn't see it on the 10 previous dated, but I see it first visible in this 11 1947 date of photography. And then I show a 12 filling of one pit that was previously visible.</p> <p>13 Q Okay. So on -- the lowest marking that 14 you have made on this image is one of the pits 15 first visible markings. Could you tell me about 16 that pit?</p> <p>17 A Just that it's rectangular, it's on the 18 extreme south of the facility there adjacent to 19 the bayou.</p> <p>20 Q Is it -- can you tell what it's 21 constructed out of?</p> <p>22 A I would say that would be an earthen-type</p>
<p style="text-align: right;">Page 306</p> <p>1 Q Are there any other significant 2 environmental features in this photo that you 3 didn't label?</p> <p>4 A We didn't discuss them, but I've got the 5 separators up to the north that were labeled, but 6 I think we've covered all the -- I've labeled 7 everything -- or mapped out significant 8 environmental features.</p> <p>9 Q Are the separators oil-water separators?</p> <p>10 A They're -- I would consider those to be 11 oil-water separators, yes. You can see bays on 12 those areas. It indicates some kind of separation 13 of liquid.</p> <p>14 Q Okay. Let's move to the next image. 15 This is a USGS map; is that right?</p> <p>16 A Yes.</p> <p>17 Q What did you use this map for?</p> <p>18 A It was just a map dated in that general 19 time frame. So I wanted to include it to show the 20 development as of that map construction -- or 21 production.</p> <p>22 Q Okay. Let's go to the next image. So</p>	<p style="text-align: right;">Page 308</p> <p>1 pit.</p> <p>2 Q What about the pit first visible on the 3 top of the image? Can you tell what that's 4 constructed out of?</p> <p>5 A I don't remember that pit exactly, but I 6 would expect that to be also an earthen pit. It's 7 not within a process area.</p> <p>8 Q And the pit first visible on the left of 9 the image, can you tell what that is constructed 10 out of?</p> <p>11 A That would also be earthen.</p> <p>12 Q Can you describe what is happening in the 13 areas you labeled bermed area with filling?</p> <p>14 A Okay. Yes. On the previous date, that's 15 a larger bermed area with liquid. It's containing 16 liquid. It's got no pits or anything like -- I'm 17 sorry, no tankage in there. So it's not designed 18 to capture a tank rupture or anything like that. 19 So it appears to be a disposal-type feature.</p> <p>20 You know, we see some filling that has 21 begun sometime between 1947 and the previous date 22 of photography. So there's obviously material</p>

<p style="text-align: right;">Page 309</p> <p>1 that's been brought in there and dumped in there.</p> <p>2 Q Do you see any spills in this image?</p> <p>3 A No, but I see the pits that would handle</p> <p>4 spills such that they would occur in many places</p> <p>5 around the facility.</p> <p>6 Q And all of the pits that you see are</p> <p>7 labeled with the red dots?</p> <p>8 A No. I've got -- well, call it a bermed</p> <p>9 area. I guess the smaller pits I have labeled</p> <p>10 with -- they're not actually dots. They're</p> <p>11 actually line work, but at the scale of this plat,</p> <p>12 it appears --</p> <p>13 THE REPORTER: I'm sorry. But at the</p> <p>14 scale of this...</p> <p>15 THE WITNESS: Print or --</p> <p>16 THE REPORTER: Oh, plat.</p> <p>17 THE WITNESS: Yeah, this exhibit, it</p> <p>18 appears as a dot.</p> <p>19 BY MS. MENEES:</p> <p>20 Q Did you say the scale of this print or</p> <p>21 the scale of this plat?</p> <p>22 A I should say exhibit. The scale of this</p>	<p style="text-align: right;">Page 311</p> <p>1 Q And then the bermed area in the middle of</p> <p>2 the site that you had described in the previous</p> <p>3 image now says filled area; is that right?</p> <p>4 A Can you put them side-by-side just so I</p> <p>5 can confirm? I believe you're correct.</p> <p>6 MS. MENEES: Let's put 148 on the left</p> <p>7 and 149 on the right.</p> <p>8 THE WITNESS: Okay. I see the same area</p> <p>9 now. Filling has continued within that bermed</p> <p>10 area since the earlier date.</p> <p>11 BY MS. MENEES:</p> <p>12 Q It looks like, in the later image, the</p> <p>13 1952 image, you have newly labeled, on the top</p> <p>14 left of the image, pond with dark liquid. Is that</p> <p>15 new from the 1947 image?</p> <p>16 A Yes, it's a change in the later year from</p> <p>17 the previous year.</p> <p>18 Q Can you describe what changed?</p> <p>19 A Well, I just identified that there's a</p> <p>20 ponded area with dark liquid that was formerly not</p> <p>21 ponded with dark liquid. It's adjacent to a</p> <p>22 previous area that is a pond with separators</p>
<p style="text-align: right;">Page 310</p> <p>1 exhibit, because the area is so large, any line</p> <p>2 work appears to blend together and looks like a</p> <p>3 dot, but actually I mapped the boundaries of these</p> <p>4 features in my stereoplotter and transferred it to</p> <p>5 the GIS. So I've actually mapped the boundaries</p> <p>6 of these pits.</p> <p>7 Q Do you see any other significant</p> <p>8 environmental features in this photo that you</p> <p>9 didn't label?</p> <p>10 A No, not that I didn't label.</p> <p>11 Q Okay. Let's go to the next image. This</p> <p>12 is dated April 15th, 1952, Port Arthur, Texas. It</p> <p>13 appears that you marked several pits as first</p> <p>14 visible in this image. Do you see that?</p> <p>15 A Yes.</p> <p>16 Q So all of those pits that you marked as</p> <p>17 first visible, were they constructed since the</p> <p>18 1947 image that we just looked at?</p> <p>19 A Yes.</p> <p>20 Q And those are what you would consider to</p> <p>21 be disposal features?</p> <p>22 A Yes.</p>	<p style="text-align: right;">Page 312</p> <p>1 visible.</p> <p>2 Q Okay. So the pond with dark liquid</p> <p>3 didn't exist in 1947?</p> <p>4 A Right. I didn't label it as such, so it</p> <p>5 didn't exist.</p> <p>6 Q Are there any other significant</p> <p>7 environmental features in the 1952 image that you</p> <p>8 didn't label?</p> <p>9 A No, I think I labeled them all, or mapped</p> <p>10 them.</p> <p>11 Q Okay. I also see in the middle of the</p> <p>12 1952 image that you have dark liquid labeled right</p> <p>13 next to a filled area. I don't see that in the</p> <p>14 1947 image. Is that also not visible in the 1947</p> <p>15 image?</p> <p>16 A Right. They definitely made some changes</p> <p>17 to that area. There's been filling in that,</p> <p>18 obviously, darker liquid area, in that area.</p> <p>19 Q Let's go to 150 of Exhibit 1. This is</p> <p>20 dated April 19th, 1953, so it's roughly a year</p> <p>21 after the previous image. You have marked a few</p> <p>22 places pit first visible. So were those pits</p>

<p style="text-align: right;">Page 313</p> <p>1 constructed between the 1952 image and the 1953</p> <p>2 image?</p> <p>3 A Yes.</p> <p>4 Q And those dark surfaces in the middle of</p> <p>5 the image you didn't have labeled in 1952. What</p> <p>6 can you tell me about those -- that label?</p> <p>7 A Well, they weren't visible on the</p> <p>8 previous date. I noted a dark surface in that</p> <p>9 area, and it appears to be in an area of disposal.</p> <p>10 Q What about the dark triangular area that</p> <p>11 you marked in the top? What can you tell me about</p> <p>12 that area?</p> <p>13 A Only that it's a -- I noted a dark</p> <p>14 surface and the general shape was triangular.</p> <p>15 Q And that didn't appear in the previous</p> <p>16 image?</p> <p>17 A I didn't note it, so it must not have</p> <p>18 been in the previous date.</p> <p>19 Q And the red markings, once again, are</p> <p>20 pits; is that right?</p> <p>21 A Correct.</p> <p>22 Q Okay. Let's go to the next image. This</p>	<p style="text-align: right;">Page 315</p> <p>1 go to page 155. What significant environmental</p> <p>2 features did you see in this image?</p> <p>3 A Well, I see that the refinery is there.</p> <p>4 There are some tanks visible, and I see three</p> <p>5 ponds that I pointed out adjacent to -- or north</p> <p>6 of Brush Creek.</p> <p>7 Q Can you tell what those ponds are used</p> <p>8 for?</p> <p>9 A The two top ponds are lighter in tone.</p> <p>10 I'm not certain what their usage is. They're very</p> <p>11 close to the active area of the refinery. The</p> <p>12 southern-most one appears to be dark. That could</p> <p>13 be more of an indicator of disposal, but, you</p> <p>14 know, I called it ponds. I wasn't certain on that</p> <p>15 particular date.</p> <p>16 Q What is the difference between a pond and</p> <p>17 a pit?</p> <p>18 A Well, a pond is -- it's sometimes -- it</p> <p>19 can be associated with handling of liquid-type</p> <p>20 waste. It can also be used in the process; you</p> <p>21 know, like if they're using water in the process.</p> <p>22 So it's not always a disposal-type feature, but</p>
<p style="text-align: right;">Page 314</p> <p>1 is dated a little more than three years after the</p> <p>2 previous image, October 10th, 1956. Do you -- do</p> <p>3 you see any significant environmental features</p> <p>4 that you didn't label on this image?</p> <p>5 A No. I think I've labeled or mapped</p> <p>6 everything I considered significant.</p> <p>7 Q Okay. We've now reviewed all of the Port</p> <p>8 Arthur images. Did you see anything specifically</p> <p>9 that looked like a spill to you in those images?</p> <p>10 A I don't know that I saw a specific spill</p> <p>11 or just the pits that would be associated with</p> <p>12 cleanups of those spills.</p> <p>13 Q Were there any other indications of waste</p> <p>14 disposal that you saw besides the pits and the</p> <p>15 dark liquid?</p> <p>16 A Well, there was some filling activities</p> <p>17 within the bermed areas. I didn't call that a</p> <p>18 pit. And the separators. But, you know, pit,</p> <p>19 separators in the bermed area pretty much covers</p> <p>20 it.</p> <p>21 Q Okay. Let's go on to the next refinery.</p> <p>22 This is Potwin, Kansas Vickers Refinery. Can we</p>	<p style="text-align: right;">Page 316</p> <p>1 quite often it's difficult to tell.</p> <p>2 Sometimes ponds are larger than basic pit</p> <p>3 areas. But it's an area that holds liquid not</p> <p>4 associated with tankage and appears to be a</p> <p>5 disposal feature, but it could also be used in the</p> <p>6 process of the facility.</p> <p>7 Q Could a pond be a pit?</p> <p>8 A It just depends on where it is, but if</p> <p>9 the pond is associated with disposal activities, I</p> <p>10 mean, you could still have disposal in a pond.</p> <p>11 Usually a pit is smaller, and there may be a more</p> <p>12 natural feature to a pond, maybe preexisting,</p> <p>13 that's then been used by the facility itself.</p> <p>14 Q Okay. Let's go to the next image. This</p> <p>15 is dated September 7th, 1950. So you didn't find</p> <p>16 any images for this refinery that were between</p> <p>17 1938 and 1950; is that right?</p> <p>18 A That's right. I presented everything</p> <p>19 I've been able to find historically.</p> <p>20 Q It looks like you labeled a few pits in</p> <p>21 this image. What can you tell me about the pits</p> <p>22 that you see in this image?</p>

<p style="text-align: right;">Page 317</p> <p>1 A They're smaller. They appear to be</p> <p>2 adjacent to -- well, one of my labeled pits is</p> <p>3 adjacent to Brush Creek, just north of it, and</p> <p>4 along Powell Street. It's small, adjacent to a</p> <p>5 pond.</p> <p>6 And then I have two pits to the south in</p> <p>7 the tank farm, south of Highway 196, larger than</p> <p>8 probably serve spills or leaks within that tank</p> <p>9 farm to the south.</p> <p>10 Q Can you tell what any of these pits are</p> <p>11 constructed out of?</p> <p>12 A Definitely the ones to the south appear</p> <p>13 to be earthen. It's less clear on the one to the</p> <p>14 north, but I would say that's likely earthen as</p> <p>15 well.</p> <p>16 Q What is happening -- what can you tell me</p> <p>17 about the light-toned bermed area in this image?</p> <p>18 A Well, all I can tell you, it's a bermed</p> <p>19 area and it's got a light-toned material in it.</p> <p>20 I'm not certain on what that material is, if it's</p> <p>21 just disturbed from construction, but it was</p> <p>22 something that I noted and labeled. Perhaps</p>	<p style="text-align: right;">Page 319</p> <p>1 and the pond.</p> <p>2 Q And both of those were constructed after</p> <p>3 the 1950 image?</p> <p>4 A Can you just put it side-by-side really</p> <p>5 quick just to confirm?</p> <p>6 Q Yeah.</p> <p>7 MS. MENEES: Put 156 on the left and 157</p> <p>8 on the right.</p> <p>9 THE WITNESS: Okay. Yeah. It was not</p> <p>10 there in 156, the earlier photograph. And it is</p> <p>11 visible -- it's been constructed between those two</p> <p>12 dates.</p> <p>13 BY MS. MENEES:</p> <p>14 Q What about the fill area that you noted</p> <p>15 in the 1954 image to the west of Powell Street?</p> <p>16 What can you tell me about that?</p> <p>17 A Well, I labeled it as a fill area. I can</p> <p>18 tell that they brought material into that area.</p> <p>19 Q Is it -- is it a disposal area?</p> <p>20 A Well, it's adjacent to a pit. I'm not</p> <p>21 certain that that particular area is disposal, but</p> <p>22 it's in a disposal area, but it could be</p>
<p style="text-align: right;">Page 318</p> <p>1 someone else involved in the litigation can shed</p> <p>2 light on that.</p> <p>3 Q Is there anything distinctive about the</p> <p>4 ponds in this image?</p> <p>5 A The location I think is consistent with</p> <p>6 the prior date. It's definitely holding liquid.</p> <p>7 Q Are there any other environmental</p> <p>8 features that you didn't label in this photo?</p> <p>9 A No. I don't see anything that I didn't</p> <p>10 label.</p> <p>11 Q Okay. Let's go to the next image. This</p> <p>12 is dated roughly four years after the previous</p> <p>13 image. It's dated June 21st, 1954. And it looks</p> <p>14 like there are some new pits in this photo. Did</p> <p>15 you see those in the previous image? Would you</p> <p>16 like to compare?</p> <p>17 A I know the ones across -- to the west of</p> <p>18 Powell Street are new, so I don't need to see</p> <p>19 that. There's a new pit and a pond.</p> <p>20 Q Can you tell what the pit, the new pit,</p> <p>21 is constructed out of?</p> <p>22 A It looks to be earthen as well, the pit</p>	<p style="text-align: right;">Page 320</p> <p>1 associated with construction of those pits and</p> <p>2 ponds.</p> <p>3 Q So it could be a disposal area?</p> <p>4 A Yes.</p> <p>5 Q Are there any other significant</p> <p>6 environmental features in this later photo, the</p> <p>7 1954 photo, that you didn't label?</p> <p>8 A No. I've labeled everything I see as</p> <p>9 significant.</p> <p>10 Q Okay. Let's go to the next image. This</p> <p>11 is from a little bit later in the year in 1954.</p> <p>12 Could we actually go to 158? I think we just</p> <p>13 looked at this one. Yeah. So this is dated</p> <p>14 November 2nd, 1954. Do you see anything different</p> <p>15 in this photo from the previous photo?</p> <p>16 A Can you go back to the previous one time,</p> <p>17 and then forward?</p> <p>18 I didn't see a big change between those</p> <p>19 two dates.</p> <p>20 Q Okay. So you didn't see any -- those</p> <p>21 were all the pictures for the Potwin, Kansas</p> <p>22 refinery, and you didn't specifically label</p>

<p style="text-align: right;">Page 321</p> <p>1 anything as a spill; is that right?</p> <p>2 A Well, I didn't see a specific spill on</p> <p>3 the site, but I see pits associated with handling</p> <p>4 of spills and things like that that would happen</p> <p>5 in a facility like this.</p> <p>6 Q And the disposal activities you saw were</p> <p>7 limited to the pits and the filled areas and the</p> <p>8 ponds; is that right?</p> <p>9 A Yes.</p> <p>10 Q Okay. Let's go to the next refinery.</p> <p>11 Can we go to page 162. This is dated August 1927.</p> <p>12 This is Santa Fe Springs, California. Are there</p> <p>13 any significant environmental features in this</p> <p>14 photo?</p> <p>15 A None that I saw.</p> <p>16 Q Let's go to the next image. This is</p> <p>17 dated November 10th, 1932. Can you tell what</p> <p>18 those pits that you labeled are constructed out</p> <p>19 of?</p> <p>20 A They appear to be earthen pits with berms</p> <p>21 on the outside.</p> <p>22 Q Are there any other significant</p>	<p style="text-align: right;">Page 323</p> <p>1 out of?</p> <p>2 A I would say they're earthen, as were the</p> <p>3 earlier pits.</p> <p>4 Q What about the dark-toned road? Do you</p> <p>5 have any observations about what could be causing</p> <p>6 the tone to be darker?</p> <p>7 A It could be -- as we discussed on an</p> <p>8 earlier photograph, it could be them driving</p> <p>9 through a freshly oiled road or road that's had</p> <p>10 liquid sprayed on it for dust suppression.</p> <p>11 Q And the liquid could have been oil or oil</p> <p>12 product?</p> <p>13 A Yes.</p> <p>14 Q Okay. Let's go to the next image. This</p> <p>15 is dated April 16th, 1941. And it looks like</p> <p>16 there are three new pits in this photo. Can you</p> <p>17 tell what they're constructed out of?</p> <p>18 A I'd say those are also earthen pits.</p> <p>19 Q Can you see whether they have any fill --</p> <p>20 any material in them?</p> <p>21 A They definitely have a dark-toned liquid</p> <p>22 in them, and they're bermed. They have berms</p>
<p style="text-align: right;">Page 322</p> <p>1 environmental features in this photo?</p> <p>2 A None that I've noted, no.</p> <p>3 Q Are the two tanks in the northern part of</p> <p>4 this photo, are they part of the refinery?</p> <p>5 A I don't believe they are. I'm not</p> <p>6 certain on the property boundary in that area.</p> <p>7 Those tanks existed well prior to construction of</p> <p>8 this refinery. So I'd say no.</p> <p>9 Q Okay. So also -- could we go back to the</p> <p>10 previous image for a second? So this 1927 photo,</p> <p>11 those tanks are not part of the refinery?</p> <p>12 A I'd rely on someone with more information</p> <p>13 on operations, but I would say, just based on</p> <p>14 looking at the aerials, they don't appear to be</p> <p>15 associated with what becomes the refinery in the</p> <p>16 later photography.</p> <p>17 Q Okay. Let's go to 164. This image is</p> <p>18 dated May 24th, 1938. What can you tell me about</p> <p>19 the pits in this image?</p> <p>20 A Two additional pits are identified that</p> <p>21 weren't seen in the earlier photograph.</p> <p>22 Q Can you tell me what they're constructed</p>	<p style="text-align: right;">Page 324</p> <p>1 around them.</p> <p>2 Q Are there any other significant</p> <p>3 environmental features in this photo?</p> <p>4 A I think I've labeled everything I</p> <p>5 considered significant.</p> <p>6 Q Can you tell whether there is any pit</p> <p>7 continuation off to the right where the photo cuts</p> <p>8 off?</p> <p>9 A Well, there has to be because I don't see</p> <p>10 the edge of the berms of that one pit farthest to</p> <p>11 the right. So there's certainly a little bit</p> <p>12 there, but that's the limit to what I can see.</p> <p>13 Q There could be potentially more pits off</p> <p>14 to the right; you just can't see them, right?</p> <p>15 A Well, I can't see or opine on what's to</p> <p>16 the right of the image other than a bounding wall</p> <p>17 on that last pit.</p> <p>18 Q Let's go to the next image. Starting off</p> <p>19 on the right side of this image, you have several</p> <p>20 pits labeled.</p> <p>21 MS. MENEES: Can we compare this to 165,</p> <p>22 Danny? Put 165 on the left and 166 on the right.</p>

<p style="text-align: right;">Page 325</p> <p>1 BY MS. MENEES:</p> <p>2 Q Can you mark for me where the pits cut</p> <p>3 off in the earlier image, where the image -- I</p> <p>4 guess what I should say is, can you mark where the</p> <p>5 image ends in the earlier image on the later</p> <p>6 image?</p> <p>7 A Okay. This is approximate.</p> <p>8 Q Okay. So can you tell from that what</p> <p>9 pits are new in the later image?</p> <p>10 A Yes. This area. I'm indicating north of</p> <p>11 the -- let's see. It's hard to describe. There's</p> <p>12 a new pit on the far right -- the far right of the</p> <p>13 right image. What's the date on that one? I</p> <p>14 don't have that in front of me.</p> <p>15 Q That is 1945, January 1st, 1945.</p> <p>16 A Okay. So there's a new pit in</p> <p>17 January 1945 that was not visible in the earlier</p> <p>18 date of photography.</p> <p>19 Q Could you just try to mark where that pit</p> <p>20 is?</p> <p>21 A (Complies.)</p> <p>22 Q So is it -- I'm just trying to describe</p>	<p style="text-align: right;">Page 327</p> <p>1 A No. I just noted that that area has been</p> <p>2 inundated for some reason and there's a change to</p> <p>3 that pit surface. It's not holding the dark</p> <p>4 liquid as it was before.</p> <p>5 Q What about the wet area to the north of</p> <p>6 the many pits on the right side of the image?</p> <p>7 A Right. I'm not certain if that's -- they</p> <p>8 made that as a drainage-type feature. That area</p> <p>9 may have been dammed up. You could see on my</p> <p>10 later photography I mapped some drainage pathways</p> <p>11 in blue lines. I didn't think that was</p> <p>12 necessarily a disposal feature.</p> <p>13 Q You didn't think the drainage was a</p> <p>14 disposal feature?</p> <p>15 A The wet area.</p> <p>16 Q Okay. Can you tell whether the material</p> <p>17 piles are liquid or solid?</p> <p>18 A Those are solid features.</p> <p>19 Q And can you tell whether they're</p> <p>20 disposal?</p> <p>21 A No. I'm not certain of that.</p> <p>22 Q What else could they be?</p>
<p style="text-align: right;">Page 326</p> <p>1 it for the record. Is it that little pit above</p> <p>2 the dark pit or is it the bigger pit next to -- to</p> <p>3 the right of it?</p> <p>4 A It's above the smaller pit to the right.</p> <p>5 It's not -- I'm pointing to the center of a pit</p> <p>6 that's roughly the same area as the smaller pit</p> <p>7 visible in the earlier topography.</p> <p>8 Q Okay. That's what it looked like. I</p> <p>9 just wanted to confirm that. Can you tell whether</p> <p>10 that pit is under construction in the earlier</p> <p>11 photo?</p> <p>12 A I don't see berms of that area. The area</p> <p>13 is disturbed, but I don't know if that's from the</p> <p>14 creation of the pits that are in use or not. The</p> <p>15 area is disturbed, but I do not see berms in the</p> <p>16 earlier photography.</p> <p>17 Q Is the area that you labeled a bermed</p> <p>18 area in the later image, is that what is formerly</p> <p>19 labeled as a pit in the earlier image?</p> <p>20 A Yes.</p> <p>21 Q And you have a wet area labeled above</p> <p>22 that. Do you know what that wetness is?</p>	<p style="text-align: right;">Page 328</p> <p>1 A They could have graded up the surface for</p> <p>2 drainage and bermed that area for some reason.</p> <p>3 Maybe in the future it becomes a waste area. I'm</p> <p>4 not certain.</p> <p>5 MS. MENEES: Danny, can we mark this as</p> <p>6 an exhibit?</p> <p>7 MR. HAMBRICK: It's up there as 15 now.</p> <p>8 I'm going to show it to you real quick.</p> <p>9 (Deposition Exhibit Number 15 was marked</p> <p>10 for identification.)</p> <p>11 BY MS. MENEES:</p> <p>12 Q Okay. Does this exhibit, Exhibit 15,</p> <p>13 accurately reflect your annotations, Mr. Grip?</p> <p>14 A Yes.</p> <p>15 Q Okay. Let's move to the next image. I</p> <p>16 think that's the one we just looked at. Move to</p> <p>17 166 or -- sorry, 167. Are any of the pits you</p> <p>18 labeled in this image new?</p> <p>19 A Yes. There's a new pit to the far east.</p> <p>20 Q Could you mark that for me?</p> <p>21 A (Complies.)</p> <p>22 Q Okay. So that's a new pit. And it was</p>

<p style="text-align: right;">Page 329</p> <p>1 constructed between 1945 and 1947; is that right?</p> <p>2 A That's right.</p> <p>3 Q Is there -- are there any other</p> <p>4 significant environmental features in this photo</p> <p>5 that aren't marked?</p> <p>6 A No, I don't believe so.</p> <p>7 Q Okay.</p> <p>8 MS. MENEES: Danny, could we capture this</p> <p>9 as an exhibit?</p> <p>10 MR. HAMBRICK: Okay. It's going to be</p> <p>11 16.</p> <p>12 (Deposition Exhibit Number 16 was marked</p> <p>13 for identification.)</p> <p>14 BY MS. MENEES:</p> <p>15 Q Okay. This has been marked as</p> <p>16 Exhibit 16. Does this accurately reflect your</p> <p>17 annotations on this image?</p> <p>18 A Yes.</p> <p>19 Q Okay. Could we go to 168? This image is</p> <p>20 dated July 7th, 1951.</p> <p>21 MR. PETIT: January.</p> <p>22 BY MS. MENEES:</p>	<p style="text-align: right;">Page 331</p> <p>1 on the left that have been removed and</p> <p>2 superimposed those lines over this date of</p> <p>3 photography that show where the former locations</p> <p>4 were and now that they've been filled. Okay?</p> <p>5 So you can see three pits were filled</p> <p>6 along the railroad spur, in between the spur and</p> <p>7 the railroad. There were two remaining pits in</p> <p>8 the later photography in that area.</p> <p>9 Then as we go to the right of the later</p> <p>10 photography, four pits have been filled and there</p> <p>11 was just one remaining pit now in the later</p> <p>12 photography.</p> <p>13 BY MS. MENEES:</p> <p>14 Q What about the light-toned area in the</p> <p>15 middle of the photograph? Can you tell what that</p> <p>16 is?</p> <p>17 A I don't know if they were using that as a</p> <p>18 staging area for removing equipment when they were</p> <p>19 removing material from the refinery or -- you</p> <p>20 know, it looks to be associated with a past</p> <p>21 action, maybe parking or staging of equipment. It</p> <p>22 doesn't look like disposal to me.</p>
<p style="text-align: right;">Page 330</p> <p>1 Q I don't know why dates are so hard for</p> <p>2 me. This is dated January 7th, 1951. Are any of</p> <p>3 the pits that you labeled in this image new?</p> <p>4 A I have to look at that one to the north.</p> <p>5 This is hard to -- I don't remember exactly. They</p> <p>6 definitely had some change between the previous</p> <p>7 date and this date. There's been pits closed, and</p> <p>8 I don't recall if they were just closed or if they</p> <p>9 were redug.</p> <p>10 I think the next image kind of sheds a</p> <p>11 little bit more light on that. There are</p> <p>12 certainly three pits that are visible whereas</p> <p>13 there were more pits in the previous photography.</p> <p>14 Q Okay. Could we go to the next image? So</p> <p>15 I guess what can you tell me about the pits that</p> <p>16 changed between 1947 and this image?</p> <p>17 MS. MENEES: Maybe we can pull them up as</p> <p>18 a side-by-side, Danny. So that would be 167 and</p> <p>19 169.</p> <p>20 THE WITNESS: Okay. Well, the image to</p> <p>21 the right, I've got some mapping on the surface.</p> <p>22 I've actually mapped the pit areas from the image</p>	<p style="text-align: right;">Page 332</p> <p>1 Q Are there any other significant</p> <p>2 environmental features in the later image that you</p> <p>3 didn't mark?</p> <p>4 A No.</p> <p>5 Q Okay. Let's go to the next image. This</p> <p>6 is the last image. So this image is dated</p> <p>7 June 27th, 1956. It looks like you have two pits</p> <p>8 labeled. Are those the same two pits that were in</p> <p>9 the previous image?</p> <p>10 A Yes.</p> <p>11 Q And then the former pit area that you</p> <p>12 have marked, that's filled from the previous</p> <p>13 image?</p> <p>14 A Yes. It's been -- they pushed in the</p> <p>15 walls and --</p> <p>16 THE REPORTER: I'm sorry?</p> <p>17 THE WITNESS: They filled in the walls or</p> <p>18 they pushed in the walls to the pit and filled the</p> <p>19 former pits.</p> <p>20 BY MS. MENEES:</p> <p>21 Q Is there anything else, any other</p> <p>22 significant environmental features about this</p>

<p style="text-align: right;">Page 333</p> <p>1 photo?</p> <p>2 A No, not that I labeled, although you</p> <p>3 could tell much of the equipment and structures</p> <p>4 have been removed from the facility.</p> <p>5 Q What about the dark area above the two</p> <p>6 pits? Can you tell what that is?</p> <p>7 A I couldn't tell what it was. I mean,</p> <p>8 it's a darker area. I didn't think it was</p> <p>9 necessarily a pit or disposal-type feature, so I</p> <p>10 didn't label it.</p> <p>11 Q Okay. And you didn't specifically note</p> <p>12 any spills at this -- at the Santa Fe Springs,</p> <p>13 California refinery, right?</p> <p>14 A I didn't note specific spills, but I see</p> <p>15 these pits that are handling features that were</p> <p>16 waste materials that would occur from spills or</p> <p>17 leaks.</p> <p>18 Q So you're assuming that if a pit is open,</p> <p>19 it's handling spills?</p> <p>20 A It's handling waste from the facility.</p> <p>21 So that would be a waste item from the facility.</p> <p>22 So I would say it would be handling that type of</p>	<p style="text-align: right;">Page 335</p> <p>1 AFTERNOON SESSION</p> <p>2 (1:05 p.m.)</p> <p>3 Whereupon,</p> <p>4 RANDALL GRIP,</p> <p>5 was called for continued examination, and having</p> <p>6 been previously duly sworn was examined and</p> <p>7 testified further as follows:</p> <p>8 EXAMINATION BY COUNSEL FOR PLAINTIFFS</p> <p>9 BY MR. PETIT:</p> <p>10 Q Mr. Grip, you know, I may go in and out</p> <p>11 of calling you Mr. Grip and Randy, because I've</p> <p>12 been calling you Randy for however long we've been</p> <p>13 working together on this. But I'm going to try to</p> <p>14 be more formal on the record and call you</p> <p>15 Mr. Grip.</p> <p>16 I want to talk about a few things that</p> <p>17 opposing counsel asked you about, and I'm going to</p> <p>18 start at the beginning of yesterday. Opposing</p> <p>19 counsel asked you about your experience with --</p> <p>20 and working in your engagements with other</p> <p>21 refineries. Do you recall that testimony</p> <p>22 yesterday?</p>
<p style="text-align: right;">Page 334</p> <p>1 material.</p> <p>2 MS. MENEES: Okay. Let's take a</p> <p>3 ten-minute break.</p> <p>4 MR. PETIT: Okay, Sydney. Can we go off</p> <p>5 the record, Denise?</p> <p>6 (Whereupon, a short recess was taken.)</p> <p>7 MS. MENEES: Okay. I am done questioning</p> <p>8 the witness for now. I may have follow-up -- I</p> <p>9 may have rebuttal questions.</p> <p>10 MR. PETIT: Okay. So you're going to</p> <p>11 pass the witness. We're going -- this is Will</p> <p>12 Petit for the plaintiffs, and we'll take a lunch</p> <p>13 break and be back on the record. How about --</p> <p>14 it's 11:42 Central -- roughly 12:40 Central?</p> <p>15 MS. MENEES: Yeah, that works for me.</p> <p>16 (Whereupon, at 12:42 p.m., a lunch recess</p> <p>17 was taken.)</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p>	<p style="text-align: right;">Page 336</p> <p>1 A Yes.</p> <p>2 Q Okay. And I believe you testified that</p> <p>3 you had worked on a number of other engagements</p> <p>4 involving refineries in the past; is that right?</p> <p>5 A That's right.</p> <p>6 Q Can you tell us about how many other</p> <p>7 engagements that you've worked on that have</p> <p>8 involved refineries?</p> <p>9 A At least additional ten, and likely more</p> <p>10 than that.</p> <p>11 Q So that's in addition to the refinery</p> <p>12 sites that are at issue in this case?</p> <p>13 A That's correct.</p> <p>14 Q Did those engagements involving refinery</p> <p>15 sites, did they also involve your analysis of</p> <p>16 significant environmental features?</p> <p>17 A Yes.</p> <p>18 Q Have you also worked on other facilities</p> <p>19 aside from refineries that are similar to the</p> <p>20 industrial facilities we're looking at in this</p> <p>21 case?</p> <p>22 A Yes. Chemical facilities, just</p>

<p style="text-align: right;">Page 337</p> <p>1 manufacturing facilities. They're now similar</p> <p>2 disposal-type features that you see on these</p> <p>3 refineries.</p> <p>4 Q So is your testimony and your opinions in</p> <p>5 this case, are they within what I would call your</p> <p>6 bailiwick?</p> <p>7 A Yes.</p> <p>8 Q Mr. Grip, opposing counsel asked you</p> <p>9 yesterday some -- a line of questioning that I</p> <p>10 interpreted as being do you have any overarching</p> <p>11 general conclusions or opinions in this case. Do</p> <p>12 you recall that?</p> <p>13 A Vaguely, yes.</p> <p>14 Q And I believe you testified that you</p> <p>15 don't have any general conclusions; is that</p> <p>16 correct?</p> <p>17 A Well, my conclusions are my opinions on</p> <p>18 what I've seen on each facility over time, these</p> <p>19 environmentally significant features and how they</p> <p>20 come and go on the different facilities.</p> <p>21 Q So would those conclusions or opinions be</p> <p>22 specific to the individual refinery locations</p>	<p style="text-align: right;">Page 339</p> <p>1 Q Opposing counsel asked you yesterday</p> <p>2 whether or not these features show an activity.</p> <p>3 Do they show an activity?</p> <p>4 A Yes, they show a disposal activity.</p> <p>5 Q Throughout the course of your deposition,</p> <p>6 opposing counsel has asked you whether or not</p> <p>7 pits, these pits and pits like these, are lined or</p> <p>8 unlined. Do you recall that?</p> <p>9 A Yes.</p> <p>10 Q Would you expect them to be lined or</p> <p>11 unlined?</p> <p>12 A In these early years I would expect them</p> <p>13 to be unlined.</p> <p>14 Q And is that consistent for each of the</p> <p>15 refinery locations?</p> <p>16 A Yes.</p> <p>17 (Discussion held off the record.)</p> <p>18 MR. PETIT: Ali, could you please compare</p> <p>19 this Exhibit 3 with Exhibit 4? You know, I think</p> <p>20 the thing to do, instead of comparing these two,</p> <p>21 Ali, is we ought to go back to Exhibit 1 and</p> <p>22 compare them that so we can blow up each of the</p>
<p style="text-align: right;">Page 338</p> <p>1 we're talking about in this case?</p> <p>2 A Well, to those specific locations, but</p> <p>3 I've seen similar activities at other refineries,</p> <p>4 chemical facilities or production facilities that</p> <p>5 I've studied in the past.</p> <p>6 MR. PETIT: Ali, could you please bring</p> <p>7 up Exhibit 1? I'm sorry, can you please bring up</p> <p>8 Exhibit 3?</p> <p>9 BY MR. PETIT:</p> <p>10 Q And Mr. Grip, I believe this is your</p> <p>11 annotated version of the June 26th, 1938 aerial</p> <p>12 from Alma, Michigan; is that right?</p> <p>13 A That's right.</p> <p>14 Q And this is the Leonard Alma facility?</p> <p>15 A Yes. Alma Leonard.</p> <p>16 Q And you have annotated on here some pits;</p> <p>17 is that right?</p> <p>18 A Yes.</p> <p>19 Q What do you believe those pits are used</p> <p>20 for?</p> <p>21 A For disposal of facility waste or spills,</p> <p>22 leaks.</p>	<p style="text-align: right;">Page 340</p> <p>1 images. Does that make sense? So I think we're</p> <p>2 going to look at -- we're going to have to find</p> <p>3 them. But it's Exhibit 1 -- actually, the number</p> <p>4 is in the top left corner. I can't see that. So</p> <p>5 40 with 45. Man, you guys are good.</p> <p>6 Okay. And Ali, if you could please zoom</p> <p>7 in on those designated areas. I think we're</p> <p>8 probably going to have to make the crops</p> <p>9 consistent.</p> <p>10 BY MR. PETIT:</p> <p>11 Q And so, for the record, Mr. Grip, what</p> <p>12 we're comparing here is your June 26th, 1938 image</p> <p>13 with the image that you've identified as circa</p> <p>14 1940; is that your understanding?</p> <p>15 A Yes.</p> <p>16 MS. MENEES: And I would just like the</p> <p>17 record to reflect that the circa 1940s one is a</p> <p>18 little bit distorted in this image.</p> <p>19 MR. PETIT: That's better. Thank you,</p> <p>20 Ali.</p> <p>21 BY MR. PETIT:</p> <p>22 Q Mr. Grip, do you recall the line of</p>

<p style="text-align: right;">Page 341</p> <p>1 questioning yesterday when opposing counsel was</p> <p>2 discussing the construction of the cat cracker?</p> <p>3 A Yes.</p> <p>4 Q And at Alma Leonard, the cat cracker,</p> <p>5 based on the documents that opposing counsel</p> <p>6 showed you, was constructed, I believe, in 1947;</p> <p>7 is that right?</p> <p>8 A Yes, I believe it was -- a pamphlet was</p> <p>9 shown yesterday.</p> <p>10 Q Do you see the cat cracker in the image</p> <p>11 on the right which is the circa 1940s image?</p> <p>12 A No.</p> <p>13 Q So if the cat cracker was constructed at</p> <p>14 Alma Leonard in 1947, would you expect this image</p> <p>15 on the right to be before 1947?</p> <p>16 A No. Wait. Before, yes.</p> <p>17 Q Okay. So it looks like we're comparing,</p> <p>18 on the left, an image from June 26th, 1938 with an</p> <p>19 image on the right sometime before 1947. Is that</p> <p>20 your understanding?</p> <p>21 A Yes, it is.</p> <p>22 Q Can you identify and annotate the changes</p>	<p style="text-align: right;">Page 343</p> <p>1 if they were there or not, so I won't mark them, a</p> <p>2 line of four.</p> <p>3 Q Can you circle the line of four that</p> <p>4 you're not sure if they're new or they potentially</p> <p>5 are obscured by the debris marking on the earlier</p> <p>6 image?</p> <p>7 A Okay. I got the four circled.</p> <p>8 Q Okay.</p> <p>9 A I think that covers it.</p> <p>10 Q In the later image -- strike that.</p> <p>11 In the earlier image, do you see the pits</p> <p>12 on the northern -- on the north side of the</p> <p>13 railroad tracks?</p> <p>14 A Yes.</p> <p>15 Q Are those pictured on the image on the</p> <p>16 right?</p> <p>17 A No. It's cut off by the photograph.</p> <p>18 Q Okay.</p> <p>19 MR. PETIT: Ali, can we mark this? I</p> <p>20 believe it's going to be Exhibit -- it's the next</p> <p>21 exhibit. I think we're at Exhibit 15. No, we're</p> <p>22 going to be at Exhibit 17.</p>
<p style="text-align: right;">Page 342</p> <p>1 that you see from 1938 to 1947 in these images?</p> <p>2 A Yes. Let's see. Should I change the</p> <p>3 color or do I stay red or -- what do you think?</p> <p>4 Q I'd like for you to stay consistent, so</p> <p>5 if red is okay with you, let's mark them in red.</p> <p>6 A Let's see. So this tank is new that I've</p> <p>7 indicated with a red arrow. This tank is new and</p> <p>8 it's covered, the location of the pit -- the areas</p> <p>9 covered one of the pits from the earlier date.</p> <p>10 Should I point that feature that's been removed?</p> <p>11 Q Let's point to the feature on the left</p> <p>12 image. Let's point to the removed pit, if you</p> <p>13 will.</p> <p>14 A Okay.</p> <p>15 Q And is it your understanding that that</p> <p>16 pit has been covered and a new tank has been</p> <p>17 constructed on that general location in between</p> <p>18 1938 and 1947?</p> <p>19 A That's correct. I have another few tanks</p> <p>20 that are new on the pre-'47 photograph. I'm</p> <p>21 marking those with arrows. I've got a few that</p> <p>22 are obscured by my label of debris. I can't tell</p>	<p style="text-align: right;">Page 344</p> <p>1 (Deposition Exhibit Number 17 was marked</p> <p>2 for identification.)</p> <p>3 MR. PETIT: Ali, we're going to want to</p> <p>4 show the exhibit to Mr. Grip to confirm that his</p> <p>5 annotations are accurately reflected in the marked</p> <p>6 exhibit.</p> <p>7 MS. KRAL: I'm doing that now. One</p> <p>8 moment, please.</p> <p>9 Just to be clear, we are on Exhibit 16,</p> <p>10 correct?</p> <p>11 MR. PETIT: Should be 17.</p> <p>12 MS. KRAL: 17. One moment. My screen is</p> <p>13 refreshing, I do apologize.</p> <p>14 It has been uploaded. Can everyone see</p> <p>15 it?</p> <p>16 MR. PETIT: No, I cannot.</p> <p>17 MS. KRAL: It's in the marked exhibits.</p> <p>18 MR. PETIT: Okay. Could you bring it up,</p> <p>19 Exhibit 17, please?</p> <p>20 MS. KRAL: Sure. One moment, please.</p> <p>21 THE WITNESS: Oh, I see. There's a -- I</p> <p>22 see. I believe --</p>

<p style="text-align: right;">Page 345</p> <p>1 MR. PETIT: Let's -- Randy, let's go off</p> <p>2 the record real quick, please.</p> <p>3 Sydney, is that okay?</p> <p>4 MS. MENEES: Yeah, that's fine.</p> <p>5 (Discussion held off the record.)</p> <p>6 BY MR. PETIT:</p> <p>7 Q Mr. Grip, we've now pulled up what's been</p> <p>8 marked as Exhibit 17. Does Exhibit 17 include the</p> <p>9 annotations that you have added to these two</p> <p>10 images?</p> <p>11 A Yes.</p> <p>12 Q Okay.</p> <p>13 MR. PETIT: Ali, can you then pull up --</p> <p>14 I'd like to have this -- page 45 on the left and</p> <p>15 I'd like to compare that with page 47 on the right</p> <p>16 from Exhibit 1.</p> <p>17 MS. KRAL: Yes, one moment, please.</p> <p>18 We're jumping back and forth. Please give me one</p> <p>19 second. I do apologize. Page 47? 45 or 47?</p> <p>20 MR. PETIT: Page 45 with 47.</p> <p>21 MS. KRAL: Got you. One moment. One</p> <p>22 moment. Coming up. It's up.</p>	<p style="text-align: right;">Page 347</p> <p>1 A Yes. The image on the right is after</p> <p>2 '47.</p> <p>3 Q Okay. And, before, we discussed changes</p> <p>4 at this location from 1938 to sometime before</p> <p>5 1947. Now I'd like to know your understanding of</p> <p>6 any additional changes that you see at the</p> <p>7 facility in between the time frames of these two</p> <p>8 images.</p> <p>9 A Well, I do see, of course, the cat</p> <p>10 cracker that you just discussed. I see -- between</p> <p>11 just those images? I'd have to refer to a</p> <p>12 previous photo see that the pits have been</p> <p>13 changed.</p> <p>14 Q And you're referring to the pits to the</p> <p>15 north of the railroad tracks?</p> <p>16 A Correct. But I do see additional</p> <p>17 development on the right side of the right image</p> <p>18 where there's new tankage and a new development.</p> <p>19 Q And can you put an arrow to the new</p> <p>20 tankage and new development?</p> <p>21 A Okay. I also --</p> <p>22 Q Can you also identify the cat cracker</p>
<p style="text-align: right;">Page 346</p> <p>1 MR. PETIT: And let's go off the record</p> <p>2 real quick, please.</p> <p>3 (Discussion held off the record.)</p> <p>4 BY MR. PETIT:</p> <p>5 Q Okay. So Mr. Grip -- and what we have</p> <p>6 here on the left is the image from your expert</p> <p>7 report for Alma Leonard, and it's circa 1940.</p> <p>8 It's the image we just discussed that was sometime</p> <p>9 before 1947; is that right?</p> <p>10 A Right.</p> <p>11 Q What we have on the right is the image</p> <p>12 from your expert report for the same location.</p> <p>13 And the time frame of that image in your report is</p> <p>14 1941 to 1954; is that correct?</p> <p>15 A Yes.</p> <p>16 Q Okay. Now, the image on the left is</p> <p>17 sometime before 1947. Do you see on the image on</p> <p>18 the right that the cat cracker that we've talked</p> <p>19 about is there?</p> <p>20 A Yes.</p> <p>21 Q So is it your understanding that this</p> <p>22 image is sometime after 1947?</p>	<p style="text-align: right;">Page 348</p> <p>1 with an arrow?</p> <p>2 A Yes. And then here's the other</p> <p>3 development I was referring to.</p> <p>4 Q Have you identified additional</p> <p>5 environmental features in the later image on the</p> <p>6 right?</p> <p>7 A Yes. The burn pit I have identified on</p> <p>8 the right.</p> <p>9 Q And I see to the north of the railroad</p> <p>10 tracks, you have some tanks that are first visible</p> <p>11 as well.</p> <p>12 A Right. But I can't see it on the left</p> <p>13 image to confirm.</p> <p>14 Q Are the pits that you see to the north of</p> <p>15 the railroad tracks, are those different than the</p> <p>16 pits that you saw in the earlier image from 1938?</p> <p>17 A Yes. They've been expanded to the west</p> <p>18 and moved down a little bit to the south. So</p> <p>19 they're just different.</p> <p>20 Q And can you circle the pits for us?</p> <p>21 A Okay.</p> <p>22 MR. PETIT: Ali, can we please mark this</p>

<p style="text-align: right;">Page 349</p> <p>1 as Exhibit 18?</p> <p>2 (Deposition Exhibit Number 18 was marked</p> <p>3 for identification.)</p> <p>4 MS. KRAL: You are -- I'm saving it now</p> <p>5 and I'll upload it shortly. Thank you. You can</p> <p>6 clear the annotation if you need to, to move on.</p> <p>7 MR. PETIT: Well, I'd like for Mr. Grip</p> <p>8 to be able to see Exhibit 18 and confirm those</p> <p>9 annotations.</p> <p>10 MS. KRAL: Got you. This will be saved</p> <p>11 as Exhibit 18. I'm moving it now. It's</p> <p>12 introduced.</p> <p>13 Can anyone see the exhibit?</p> <p>14 THE WITNESS: I see it.</p> <p>15 MR. PETIT: Do you know what folder</p> <p>16 they're saved in? Because I'm not seeing it.</p> <p>17 MS. KRAL: You might have to refresh your</p> <p>18 screen. It's in the marked folder.</p> <p>19 MR. PETIT: I'm in a marked folder.</p> <p>20 THE WITNESS: With today's date.</p> <p>21 MR. PETIT: I'll worry about that later.</p> <p>22 Can you please pull up the exhibit to</p>	<p style="text-align: right;">Page 351</p> <p>1 A Yes.</p> <p>2 Q I'd like to turn your attention to Alma</p> <p>3 Midwest.</p> <p>4 MR. PETIT: Ali, could you please bring</p> <p>5 up Exhibit 1 at page 59?</p> <p>6 MS. KRAL: Just that one? No</p> <p>7 side-by-side?</p> <p>8 MR. PETIT: Well, eventually we're going</p> <p>9 to compare it to Exhibit 1 at page 68.</p> <p>10 MS. KRAL: One moment, please.</p> <p>11 BY MR. PETIT:</p> <p>12 Q Mr. Grip, is this an image of the Alma</p> <p>13 Midwest refinery on June 26th, 1938?</p> <p>14 A Yes.</p> <p>15 Q And you testified yesterday regarding the</p> <p>16 pit that's designated in the -- roughly in the</p> <p>17 center of the image. Do you see that?</p> <p>18 A Yes.</p> <p>19 Q And what do you believe that pit is used</p> <p>20 for?</p> <p>21 A I believe it services the tanks in that</p> <p>22 area for the spills or leakage or the tank --</p>
<p style="text-align: right;">Page 350</p> <p>1 show Mr. Grip, Ali?</p> <p>2 MS. KRAL: Yes. One moment, please.</p> <p>3 I'm sorry, that's the wrong one. For</p> <p>4 some reason, it got saved double. I'm sorry. Can</p> <p>5 we go off the record one second?</p> <p>6 MR. PETIT: Sure.</p> <p>7 (Discussion held off the record.)</p> <p>8 BY MR. PETIT:</p> <p>9 Q Mr. Grip, does Exhibit 18 accurately</p> <p>10 reflect the annotations that you made on the two</p> <p>11 images we just discussed?</p> <p>12 A Yes.</p> <p>13 Q Okay. Could there be operational changes</p> <p>14 at this facility that you don't see on these</p> <p>15 images?</p> <p>16 A Well, there's new tankage. I cannot tell</p> <p>17 necessarily, unless there's a very distinctive</p> <p>18 change in the buildings, what they're doing as a</p> <p>19 process. So there could be changes in the</p> <p>20 process, I would say yes.</p> <p>21 Q There could be changes at this facility</p> <p>22 in between these dates that you don't see?</p>	<p style="text-align: right;">Page 352</p> <p>1 THE REPORTER: I'm sorry. I didn't hear</p> <p>2 what you said after leakage.</p> <p>3 THE WITNESS: Leakage, spills or the</p> <p>4 bottoms in that area.</p> <p>5 BY MR. PETIT:</p> <p>6 Q Yesterday you testified -- you used the</p> <p>7 word "petroleum product" as a descriptor of what</p> <p>8 that pit could contain. Is that accurate?</p> <p>9 A More specifically, a waste product is</p> <p>10 what I mean.</p> <p>11 Q Could it contain product if it spilled?</p> <p>12 A Yes, it could contain that, but that's --</p> <p>13 to me, it becomes a waste product at that point.</p> <p>14 MR. PETIT: Ali, could you please compare</p> <p>15 this image with Exhibit 1 at page 68? And -- I'm</p> <p>16 sorry, it's actually 69. That's the right one.</p> <p>17 BY MR. PETIT:</p> <p>18 Q Mr. Grip, is the image on the right dated</p> <p>19 April 5th, 1954?</p> <p>20 A Yes.</p> <p>21 MR. PETIT: Okay. And Ali, can you now</p> <p>22 crop those images like we have before?</p>

<p style="text-align: right;">Page 353</p> <p>1 MS. KRAL: Yes. How is that?</p> <p>2 MR. PETIT: Keep going to the north.</p> <p>3 MS. KRAL: To the north here? Is this</p> <p>4 where you want it? Do you see the blue square?</p> <p>5 MR. PETIT: Yeah, I'd like for the top of</p> <p>6 the square --</p> <p>7 MS. KRAL: Okay.</p> <p>8 MR. PETIT: No. There you go.</p> <p>9 MS. KRAL: Okay. Is that good? To</p> <p>10 there?</p> <p>11 MR. PETIT: Yes, ma'am.</p> <p>12 MS. KRAL: How far down?</p> <p>13 MR. PETIT: That works.</p> <p>14 BY MR. PETIT:</p> <p>15 Q Mr. Grip, we're comparing between 1938</p> <p>16 and 19 -- approximately April 1954 in these two</p> <p>17 images. Can you identify and annotate where you</p> <p>18 see changes in this facility?</p> <p>19 A Okay. On the right image, I'm just going</p> <p>20 to circle the landfilling operation. Well, it</p> <p>21 roughly captures it. I'm going to redo this.</p> <p>22 Okay. I have to point on the previous date that</p>	<p style="text-align: right;">Page 355</p> <p>1 that one. It's very dark liquid.</p> <p>2 Q And if you travel from east to west, does</p> <p>3 that end up going into the Pine River?</p> <p>4 A Wait. East to west.</p> <p>5 Q On the west side of where that liquid is,</p> <p>6 is that the Pine River?</p> <p>7 What's the north-south street right there</p> <p>8 that is perpendicular to the new berm?</p> <p>9 A Bridge Avenue.</p> <p>10 Q And what's on the other side of Bridge</p> <p>11 Avenue?</p> <p>12 A That's the Pine River.</p> <p>13 MR. PETIT: And Ali, can we please mark</p> <p>14 this Exhibit 19, please?</p> <p>15 MS. KRAL: Yes.</p> <p>16 (Deposition Exhibit Number 19 was marked</p> <p>17 for identification.)</p> <p>18 MS. KRAL: One moment. I will turn these</p> <p>19 into PDFs at another time. I'm going to save them</p> <p>20 to save time -- okay -- as PMGs. JPEGs. It's</p> <p>21 okay. Let me just pull it in.</p> <p>22 One moment. I'm getting into the</p>
<p style="text-align: right;">Page 354</p> <p>1 the pit is no longer visible. So I've indicated</p> <p>2 the pit that's no longer visible in the image on</p> <p>3 the right.</p> <p>4 Q Well, you've indicated the pit that's no</p> <p>5 longer visible on the left. And that pit that</p> <p>6 you've indicated is no longer visible on the image</p> <p>7 on the right, correct?</p> <p>8 A Right. I'm going to point out some new</p> <p>9 tanks, new berm. I'm annotating on the right.</p> <p>10 And expanded process area. I'm pointing to the</p> <p>11 general area on the right. This entire</p> <p>12 development in an area I'm pointing south of the</p> <p>13 berm is a new development.</p> <p>14 Q And right to the north of where you just</p> <p>15 pointed with that new development, you see an area</p> <p>16 you've designated with liquid. Do you see that?</p> <p>17 A Yes.</p> <p>18 Q And what do you believe that liquid to</p> <p>19 be?</p> <p>20 A Well, it's impeded flow into that low</p> <p>21 area by the berm. I mean, it's in an area of --</p> <p>22 it could be a disposal area. I'm not certain on</p>	<p style="text-align: right;">Page 356</p> <p>1 correct -- there it is.</p> <p>2 MR. HAMBRICK: I'm so sorry. You have to</p> <p>3 save them as PDFs before it actually adds the</p> <p>4 exhibit stamp on. So you'll want to PDF them</p> <p>5 first. I had that same problem yesterday.</p> <p>6 MS. KRAL: Okay. Thank you for letting</p> <p>7 me know.</p> <p>8 Sorry, guys. It will be just one moment.</p> <p>9 It's a conversion thing.</p> <p>10 MR. PETIT: Hey, Danny, I'm all for any</p> <p>11 helpful hints.</p> <p>12 MS. KRAL: Okay. I'm almost there. The</p> <p>13 process, guys, I apologize. Introducing the</p> <p>14 exhibit as 19. Does everyone see it?</p> <p>15 MR. PETIT: I do not see it as an exhibit</p> <p>16 with an exhibit sticker.</p> <p>17 MS. KRAL: I'm saying, is it in the</p> <p>18 marked exhibits for you? But that's okay. I will</p> <p>19 pull it into my share screen.</p> <p>20 Danny, do you have something to share?</p> <p>21 THE WITNESS: This is Randy. I actually</p> <p>22 noticed that the PDF on Exhibit 18 is now a CCS.</p>

<p style="text-align: right;">Page 357</p> <p>1 MS. KRAL: Yes, because you have to</p> <p>2 refresh your screen. We changed it.</p> <p>3 THE WITNESS: Okay.</p> <p>4 MS. KRAL: One moment. It's coming up.</p> <p>5 Presenting.</p> <p>6 BY MR. PETIT:</p> <p>7 Q Okay. Mr. Grip, does Exhibit 19</p> <p>8 accurately reflect the annotations you made on the</p> <p>9 two images we just discussed?</p> <p>10 A Yes.</p> <p>11 Q Okay.</p> <p>12 MR. PETIT: And I would like to go off</p> <p>13 the record just for a little bit.</p> <p>14 (Discussion held off the record.)</p> <p>15 BY MR. PETIT:</p> <p>16 Q Mr. Grip, during the time period that</p> <p>17 we're looking at for purposes of Alma Midwest, do</p> <p>18 you see disposal features in each of the images</p> <p>19 we've discussed?</p> <p>20 A Yes.</p> <p>21 Q Do those disposal features change over</p> <p>22 time?</p>	<p style="text-align: right;">Page 359</p> <p>1 Q And why is that?</p> <p>2 A Just the proximity, the tone of it, the</p> <p>3 basic size and the location on the facility; it's</p> <p>4 closest to the tanks that it serves.</p> <p>5 Q And in addition to those tanks -- or in</p> <p>6 addition to those pits, excuse me, you see some</p> <p>7 other significant environmental features on this</p> <p>8 image; is that right?</p> <p>9 A Yes.</p> <p>10 MR. PETIT: Ali, can you please compare</p> <p>11 this image with Exhibit 1 at 76?</p> <p>12 BY MR. PETIT:</p> <p>13 Q And Mr. Grip, do you see we're comparing</p> <p>14 the April 15th, 1940 image with the May 22nd, 1949</p> <p>15 image; is that right?</p> <p>16 A Yes.</p> <p>17 MR. PETIT: Ali, can you crop these?</p> <p>18 MS. KRAL: Is that appropriate there?</p> <p>19 MR. PETIT: Yes. Yes. Maybe a little to</p> <p>20 the left, please. We want to capture the tanks.</p> <p>21 Here we go.</p> <p>22 BY MR. PETIT:</p>
<p style="text-align: right;">Page 358</p> <p>1 A Yes.</p> <p>2 Q Okay. Turn your attention to the Ardmore</p> <p>3 facility.</p> <p>4 MR. PETIT: Ali, can we please pull up</p> <p>5 Exhibit 1 at 73.</p> <p>6 BY MR. PETIT:</p> <p>7 Q Mr. Grip, this is an image from your</p> <p>8 report dated April 15th, 1940 of the Ardmore,</p> <p>9 Oklahoma facility. Do you see that?</p> <p>10 A Yes.</p> <p>11 Q You have a number of environmental</p> <p>12 features -- I think you've characterized these as</p> <p>13 significant environmental features noted on here;</p> <p>14 is that right?</p> <p>15 A Yes.</p> <p>16 Q Do you see the three pits towards the</p> <p>17 bottom of the image?</p> <p>18 A Yes, I do.</p> <p>19 Q What do you believe those pits to</p> <p>20 contain?</p> <p>21 A Waste material, likely associated with</p> <p>22 the tanks in that area.</p>	<p style="text-align: right;">Page 360</p> <p>1 Q Mr. Grip, can you please describe the</p> <p>2 kinds of changes you see at the site in between</p> <p>3 April 15th, 1940 and May 22nd, 1949?</p> <p>4 A I see a filling of one of the pits to the</p> <p>5 northeast.</p> <p>6 Q Can you mark that?</p> <p>7 A I'll mark the area where it was formerly</p> <p>8 located. Let's see. On the right image, it's a</p> <p>9 former pit area I've just marked.</p> <p>10 Q And that's up in the northeast corner of</p> <p>11 that image; is that right?</p> <p>12 A Yes.</p> <p>13 Q Okay. Anything else?</p> <p>14 A I've got new pits that are visible that</p> <p>15 I'm also marking slightly farther to the south</p> <p>16 from the former pit location I just identified.</p> <p>17 I'm also marking a change of a pit. The area</p> <p>18 around the pit is very light in tone, so they may</p> <p>19 have been making the berms bigger or maintaining</p> <p>20 those berms.</p> <p>21 I've got another pit on the south portion</p> <p>22 of the facility that's new. It was not visible on</p>

<p style="text-align: right;">Page 361</p> <p>1 the previous date of photography.</p> <p>2 Q And is that to the right of a larger tank</p> <p>3 on the bottom of the image?</p> <p>4 A Yes. And then I'm pointing out another</p> <p>5 arrow -- the three pits that we discussed on the</p> <p>6 earlier date, one of those pits appears to no</p> <p>7 longer be in use.</p> <p>8 Then we've also got a new pit slightly</p> <p>9 farther to the south of that and then another pit</p> <p>10 that I've identified that's new.</p> <p>11 Q Can you see any changes in either the</p> <p>12 tank farm -- tank areas or the process areas?</p> <p>13 A I don't know that I see a major change in</p> <p>14 the buildings of the process area, and I don't see</p> <p>15 a lot of change in the tankage between those two</p> <p>16 dates.</p> <p>17 Q Mr. Grip, between these two dates, do you</p> <p>18 see significant environmental features and</p> <p>19 disposal features in both of the dates?</p> <p>20 A Yes.</p> <p>21 Q And do those features change over time?</p> <p>22 A Yes.</p>	<p style="text-align: right;">Page 363</p> <p>1 Q Mr. Grip, this is the July 10th, 1938</p> <p>2 image -- aerial photograph we see of the Arkansas</p> <p>3 City refinery; is that right?</p> <p>4 A Yes.</p> <p>5 Q And this is from your expert report?</p> <p>6 A Yes.</p> <p>7 Q And you've identified a number of</p> <p>8 significant environmental features on this image;</p> <p>9 is that correct?</p> <p>10 A Yes.</p> <p>11 MR. PETIT: Ali, can you please compare</p> <p>12 this to the September 1950 aerial. It's at</p> <p>13 page 84.</p> <p>14 BY MR. PETIT:</p> <p>15 Q And Mr. Grip, the image on the right is</p> <p>16 from September 5th, 1950?</p> <p>17 A Yes.</p> <p>18 MR. PETIT: Ali, that's perfect.</p> <p>19 BY MR. PETIT:</p> <p>20 Q Mr. Grip, if you could please describe</p> <p>21 and annotate some changes you see between these</p> <p>22 facilities between 1938 and 1950.</p>
<p style="text-align: right;">Page 362</p> <p>1 MR. PETIT: Ali, can we please mark this</p> <p>2 as Exhibit 20?</p> <p>3 MS. KRAL: Yes.</p> <p>4 (Deposition Exhibit Number 20 was marked</p> <p>5 for identification.)</p> <p>6 MS. KRAL: One moment. Okay. One</p> <p>7 moment. I'm uploading that. Okay. I'm about to</p> <p>8 pull it in.</p> <p>9 MR. PETIT: And Ali, please, just for</p> <p>10 record purposes, you don't have to provide the</p> <p>11 comments.</p> <p>12 MS. KRAL: Okay. It's up.</p> <p>13 BY MR. PETIT:</p> <p>14 Q Mr. Grip, if you could -- there you go.</p> <p>15 Mr. Grip, does Exhibit 20 accurately reflect the</p> <p>16 annotations you made between these two images?</p> <p>17 A Yes.</p> <p>18 Q Okay. I'd like to turn your attention to</p> <p>19 the Arkansas City refinery.</p> <p>20 MR. PETIT: Ali, if you could please pull</p> <p>21 up Exhibit 1 at 82.</p> <p>22 BY MR. PETIT:</p>	<p style="text-align: right;">Page 364</p> <p>1 A Okay. I see the spray pond on the right</p> <p>2 image, the 1950 image, has been divided into three</p> <p>3 separate areas. I pointed that feature out on the</p> <p>4 right image. There were two dark-toned pits in</p> <p>5 the earlier date. I only see one now. So I'm</p> <p>6 pointing out that area on the right.</p> <p>7 The dark liquid along the spur is a new</p> <p>8 feature in the later date. Also, many tanks have</p> <p>9 been removed from the south central portion of the</p> <p>10 refinery on the later date.</p> <p>11 Q When you say many tanks, do you mean the</p> <p>12 entire tank farm area?</p> <p>13 A Well, there are some tanks that still</p> <p>14 remain south of it, but many towards the central</p> <p>15 portion of the site have been removed, buildings</p> <p>16 and tanks. Maybe I -- I'll circle that, the</p> <p>17 approximate area.</p> <p>18 Well, on the left image I'll just point</p> <p>19 out a feature that's not seen in the later date on</p> <p>20 the south side of the facility.</p> <p>21 Q And what does that feature appear to be?</p> <p>22 A Well, it's got bays. It looks almost</p>

<p style="text-align: right;">Page 365</p> <p>1 like a separator. I'm not sure what that item is.</p> <p>2 That's probably the changes.</p> <p>3 Q Can I turn your attention to the top of</p> <p>4 both images. Do you see the impoundment on the</p> <p>5 left and the series of connected pits on the</p> <p>6 right?</p> <p>7 A I do see pits that have changed on the</p> <p>8 later image along the Walnut River. And then</p> <p>9 there's an impoundment that was seen that doesn't</p> <p>10 appear to be impounded on the later date.</p> <p>11 Q Do you believe there's been some filling</p> <p>12 to the southeast in the disposal area?</p> <p>13 A Well, it's disturbed. I don't know if</p> <p>14 there's been filling. There's still a pit located</p> <p>15 in that area. That covers it.</p> <p>16 Q And as before, could there be</p> <p>17 process-type changes that you can't see in these</p> <p>18 images?</p> <p>19 A Certainly.</p> <p>20 Q And do you see disposal features in both</p> <p>21 images?</p> <p>22 A Yes.</p>	<p style="text-align: right;">Page 367</p> <p>1 location of the facility as it existed on</p> <p>2 November 14th, 1938; is that correct?</p> <p>3 A Yes.</p> <p>4 Q Okay. And there are some tanks visible</p> <p>5 at this location. Do you see that?</p> <p>6 A Yes.</p> <p>7 Q And have you also marked a significant</p> <p>8 environmental feature?</p> <p>9 A Yes. I have a pit to the northeast.</p> <p>10 Q And what do you understand the</p> <p>11 significance of that location is relative to the</p> <p>12 tanks nearby?</p> <p>13 A The pit would likely serve those -- any</p> <p>14 spills or releases related to those tanks.</p> <p>15 MR. PETIT: Ali, can we please compare</p> <p>16 that image with page 91?</p> <p>17 BY MR. PETIT:</p> <p>18 Q And the image that we are comparing is</p> <p>19 dated March 29th, 1952. Do you see that?</p> <p>20 A Yes.</p> <p>21 MR. PETIT: And I'm sorry, Ali, I think</p> <p>22 it's 91, not 92. And so I'm going to correct the</p>
<p style="text-align: right;">Page 366</p> <p>1 Q Did those features change over time?</p> <p>2 A Yes.</p> <p>3 MR. PETIT: And Ali, can we please mark</p> <p>4 this as -- I believe Exhibit 20.</p> <p>5 MS. KRAL: 21.</p> <p>6 MR. PETIT: Exhibit 21, excuse me.</p> <p>7 (Deposition Exhibit Number 21 was marked</p> <p>8 for identification.)</p> <p>9 BY MR. PETIT:</p> <p>10 Q Mr. Grip, do you see Exhibit 21 before</p> <p>11 you?</p> <p>12 A Yes.</p> <p>13 Q And does it accurately reflect the</p> <p>14 annotations you made on these two images?</p> <p>15 A Yes.</p> <p>16 Q Okay. I would like to turn our attention</p> <p>17 to Blue Island.</p> <p>18 MR. PETIT: Ali, can you please bring up</p> <p>19 Exhibit 1 at page 89?</p> <p>20 BY MR. PETIT:</p> <p>21 Q Mr. Grip, this is the image from your</p> <p>22 report of the Blue Island facility -- or the</p>	<p style="text-align: right;">Page 368</p> <p>1 record. And we're comparing November 14th, 1938</p> <p>2 with December 4th, 1951.</p> <p>3 BY MR. PETIT:</p> <p>4 Q Do you see that, Mr. Grip?</p> <p>5 A Yes.</p> <p>6 Q Is the pit visible in the 1951 image?</p> <p>7 A No.</p> <p>8 Q Can you identify generally the location</p> <p>9 of where that pit would be if it existed in 1951?</p> <p>10 A The cropping is slightly different in</p> <p>11 scale, so it's pretty difficult, but I'd say it's</p> <p>12 generally in this area that I'm marking on the</p> <p>13 right image.</p> <p>14 Q So at some point between November 1938</p> <p>15 and December 1951, a number of new equipment has</p> <p>16 been constructed in the area of that former pit</p> <p>17 location. Is that your understanding?</p> <p>18 A Yes.</p> <p>19 Q And in the image on the right, you</p> <p>20 haven't identified any significant environmental</p> <p>21 features, have you?</p> <p>22 A No.</p>

<p style="text-align: right;">Page 369</p> <p>1 Q Is the area within the tank berms with</p> <p>2 those larger tanks, is that big enough for a pit</p> <p>3 to have been used in that time frame?</p> <p>4 A Yes. Like we saw on another site, a</p> <p>5 similar activity could be done in that area.</p> <p>6 Q Can you point to the locations where</p> <p>7 those kind of activities could have taken place?</p> <p>8 A (Complies.)</p> <p>9 Q Now, do you know whether tank bottoms</p> <p>10 were disposed in those locations?</p> <p>11 A No.</p> <p>12 Q Do you understand that that was a</p> <p>13 practice that was used during this time frame?</p> <p>14 A Yes, I've seen that.</p> <p>15 Q And have you seen it in other refineries</p> <p>16 at issue in this case?</p> <p>17 A Yes.</p> <p>18 MS. MENEES: I'd just like to clarify</p> <p>19 something. Mr. Grip marked a red arrow to show</p> <p>20 where the pit would have been and red arrows to</p> <p>21 show the berm, potential pit locations. It seems</p> <p>22 like it's difficult to distinguish which marking</p>	<p style="text-align: right;">Page 371</p> <p>1 Q Okay.</p> <p>2 MR. PETIT: Ali, if you could show us,</p> <p>3 please, Exhibit 1 at 92, which is just the next</p> <p>4 image dated March 29th, 1952.</p> <p>5 BY MR. PETIT:</p> <p>6 Q Mr. Grip, you noted on here a new</p> <p>7 significant environmental feature as a pit</p> <p>8 separator. Do you see that?</p> <p>9 A Yes.</p> <p>10 Q And I believe you testified that that's</p> <p>11 potentially a more engineered-type disposal</p> <p>12 feature; is that correct?</p> <p>13 A Yes.</p> <p>14 Q And why do you think that it's more of an</p> <p>15 engineered disposal feature?</p> <p>16 A The straight lines surrounding it. Also,</p> <p>17 the oblique gave me a better view into that that</p> <p>18 made it look like it was more a straight wall</p> <p>19 structure, engineered.</p> <p>20 Q And when you're referring to the oblique,</p> <p>21 are you referring to an additional image within</p> <p>22 your report?</p>
<p style="text-align: right;">Page 370</p> <p>1 was for which feature.</p> <p>2 BY MR. PETIT:</p> <p>3 Q Mr. Grip does the marking of the former</p> <p>4 pit location, is that in the top right of the</p> <p>5 right-hand image?</p> <p>6 A It is. I could also circle it.</p> <p>7 Q Let's do that.</p> <p>8 MR. PETIT: Thank you, Sydney.</p> <p>9 Ali, can we please mark this as</p> <p>10 Exhibit 22?</p> <p>11 (Deposition Exhibit Number 22 was marked</p> <p>12 for identification.)</p> <p>13 MS. KRAL: It's taking a while to load.</p> <p>14 I am loading it, though.</p> <p>15 BY MR. PETIT:</p> <p>16 Q Mr. Grip, do you see Exhibit 22 before</p> <p>17 you?</p> <p>18 A Yes.</p> <p>19 Q And does it accurately reflect the</p> <p>20 annotations you've made on these two images we</p> <p>21 just discussed?</p> <p>22 A Yes.</p>	<p style="text-align: right;">Page 372</p> <p>1 A Yes.</p> <p>2 Q Is that oblique from November 1953?</p> <p>3 A I believe it is. I know it's a later</p> <p>4 date than the one I was looking at.</p> <p>5 MR. PETIT: Ali, can you please turn the</p> <p>6 page to 93?</p> <p>7 BY MR. PETIT:</p> <p>8 Q Is this the oblique you've referenced?</p> <p>9 A Yes.</p> <p>10 Q If I can turn your attention to the</p> <p>11 Hanford refinery location.</p> <p>12 MR. PETIT: Ali, can you please bring up</p> <p>13 Exhibit 1 at page 97? I'm sorry, we're actually</p> <p>14 going to go to 98.</p> <p>15 BY MR. PETIT:</p> <p>16 Q Mr. Grip, is this an image from your</p> <p>17 report dated September 14th, 1937?</p> <p>18 A Yes.</p> <p>19 Q And you've identified pits on this image,</p> <p>20 correct?</p> <p>21 A Yes.</p> <p>22 MR. PETIT: Ali, can you please compare</p>

<p style="text-align: right;">Page 373</p> <p>1 this to the image at page 99, the next image?</p> <p>2 BY MR. PETIT:</p> <p>3 Q And the image we're comparing the</p> <p>4 September 14th, 1937 image with is dated May 19th,</p> <p>5 1942. Do you see that?</p> <p>6 A Yes.</p> <p>7 Q Okay. Could you please describe the</p> <p>8 changes that you see in these images and annotate</p> <p>9 them?</p> <p>10 A Okay. On the right part of the screen,</p> <p>11 I'm going to draw arrows to new pits that are seen</p> <p>12 on the refinery that were not there on the earlier</p> <p>13 date.</p> <p>14 Let's see. I've got a change in tankage</p> <p>15 I'll draw on the right portion of the screen. And</p> <p>16 one of the pits that was previously seen, I didn't</p> <p>17 identify. It looks like it's filled or no longer</p> <p>18 in use.</p> <p>19 Q And so you see two pits on the left</p> <p>20 image. You're only seeing one pit in that general</p> <p>21 location on the right image; is that right?</p> <p>22 A That's right.</p>	<p style="text-align: right;">Page 375</p> <p>1 Q Mr. Grip, do you see Exhibit 23 presented</p> <p>2 before you?</p> <p>3 A Yes.</p> <p>4 Q And does it accurately reflect the</p> <p>5 annotations you've made on the two images we just</p> <p>6 discussed?</p> <p>7 A Yes.</p> <p>8 Q Okay.</p> <p>9 MR. PETIT: Ali, I'd like to compare</p> <p>10 page 99 with 100.</p> <p>11 BY MR. PETIT:</p> <p>12 Q Mr. Grip, the image on the left is the</p> <p>13 one we just discussed from May 19th, 1942, and</p> <p>14 we're going to compare that image with an image on</p> <p>15 the right from January 25th, 1950. Do you see</p> <p>16 that?</p> <p>17 A Yes.</p> <p>18 Q Okay. Can you describe and annotate the</p> <p>19 changes that you see between May 1942 and</p> <p>20 January 1950?</p> <p>21 A Okay. I'll point out a pit on the later</p> <p>22 date that's been expanded, a new tank that's</p>
<p style="text-align: right;">Page 374</p> <p>1 Q And instead of an arrow, can you put a</p> <p>2 circle around the pit location that you no longer</p> <p>3 see as in operation?</p> <p>4 A Okay. Done.</p> <p>5 I also see some change in the tankage in</p> <p>6 the operating area and buildings. I mean, there's</p> <p>7 just -- you could see some change.</p> <p>8 Q Can you draw a circle around that like</p> <p>9 you've done? So the process area, you believe,</p> <p>10 have changed?</p> <p>11 A Right. And also -- I'll circle one more</p> <p>12 feature in the later date that's different. Three</p> <p>13 features -- I think they're buildings, but they</p> <p>14 could be horizontal tanks. I can't tell without</p> <p>15 looking at my stereoscopic imagery.</p> <p>16 Q Anything else?</p> <p>17 A I think that covers it.</p> <p>18 MR. PETIT: Ali, can you please mark this</p> <p>19 as Exhibit 23?</p> <p>20 (Deposition Exhibit Number 23 was marked</p> <p>21 for identification.)</p> <p>22 BY MR. PETIT:</p>	<p style="text-align: right;">Page 376</p> <p>1 visible on the later date. I think that covers</p> <p>2 it.</p> <p>3 Q Does the process area look the same to</p> <p>4 you?</p> <p>5 A Slightly different scales on these</p> <p>6 images. They look fairly similar between these</p> <p>7 two dates.</p> <p>8 Q Could there be process changes that you</p> <p>9 can't see in this aerial imagery?</p> <p>10 A Certainly.</p> <p>11 Q Okay. And throughout the dates that</p> <p>12 we've looked at at this refinery location, do you</p> <p>13 see disposal features in each of those dates?</p> <p>14 A Yes.</p> <p>15 Q Do those disposal features change over</p> <p>16 time?</p> <p>17 A Yes.</p> <p>18 Q I'd like to turn the page to Houston.</p> <p>19 MR. PETIT: Ali, if you could please</p> <p>20 bring up page 108 from Exhibit 1.</p> <p>21 BY MR. PETIT:</p> <p>22 Q Mr. Grip, this is an image of the Houston</p>

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<p>1 refinery, what we've called plant number 1, dated</p> <p>2 November 8th, 1938. Do you see that?</p> <p>3 A Yes.</p> <p>4 Q And you've identified disposal features</p> <p>5 on this image, true?</p> <p>6 A Yes.</p> <p>7 MR. PETIT: Ali, can you please compare</p> <p>8 that to page 111?</p> <p>9 BY MR. PETIT:</p> <p>10 Q We're comparing that earlier image with</p> <p>11 an image from April 3rd, 1944. Do you see that?</p> <p>12 A Yes.</p> <p>13 Q Mr. Grip, can you please describe and</p> <p>14 annotate the changes that you see in the two</p> <p>15 images?</p> <p>16 A Okay. On the later image on the right, I</p> <p>17 see filling within the slush pit that was [sic]</p> <p>18 previously visible on the earlier date. I see</p> <p>19 additional -- or debris areas, the one -- my</p> <p>20 Internet connection is unstable. Okay. There's a</p> <p>21 bunch of arrows there.</p> <p>22 Q So you've identified new debris areas on</p>	<p>1 Q And as before, could there also be</p> <p>2 changes that you don't see in these images?</p> <p>3 A Yes.</p> <p>4 Q Like process-type changes?</p> <p>5 A Yes.</p> <p>6 Q And between these two dates, do you see</p> <p>7 disposal features in both images?</p> <p>8 A Yes.</p> <p>9 Q And do they change over time?</p> <p>10 A Yes.</p> <p>11 Q I would like to turn our attention to</p> <p>12 plant 2.</p> <p>13 MR. PETIT: Ali, can you please bring up</p> <p>14 Exhibit 1 at page 119?</p> <p>15 BY MR. PETIT:</p> <p>16 Q Mr. Grip, this is an aerial image of the</p> <p>17 site location for what we've called plant number 2</p> <p>18 dated October 25th, 1938. Do you see that?</p> <p>19 A Yes.</p> <p>20 MR. PETIT: Ali, can you compare this one</p> <p>21 to page 124 of Exhibit 1?</p> <p>22 BY MR. PETIT:</p>
Page 378	Page 380
<p>1 the left --</p> <p>2 A Yes.</p> <p>3 Q -- of the later image?</p> <p>4 A Correct. I'll also point out new</p> <p>5 development to the south.</p> <p>6 Q Do you see any additional oil traps?</p> <p>7 A It's pointed -- yeah, I see -- it wasn't</p> <p>8 marked in the earlier date. There was a dark</p> <p>9 feature there earlier that could have been</p> <p>10 associated with that, but that is a new feature</p> <p>11 that I identified.</p> <p>12 Q Okay.</p> <p>13 MR. PETIT: Ali, I would like to mark</p> <p>14 this -- are we on Exhibit 23 or 24?</p> <p>15 (Deposition Exhibit Number 24 was marked</p> <p>16 for identification.)</p> <p>17 MS. KRAL: 24.</p> <p>18 BY MR. PETIT:</p> <p>19 Q Mr. Grip, you've got presented before you</p> <p>20 Exhibit 24. Does it accurately reflect some of</p> <p>21 the annotations you made between the two images?</p> <p>22 A Yes.</p>	<p>1 Q We're comparing the earlier image to an</p> <p>2 image -- an aerial photo dated April 3rd, 1944.</p> <p>3 Do you see that?</p> <p>4 Mr. Grip, I didn't hear your answer.</p> <p>5 A Yes.</p> <p>6 Q Okay. And is it your understanding that</p> <p>7 they constructed a whole new facility between the</p> <p>8 1938 and 1944 dates?</p> <p>9 A Yes.</p> <p>10 Q So I'm not going to ask you to mark every</p> <p>11 change that was made, because it's all been</p> <p>12 changed, correct?</p> <p>13 A Yes. The vast majority of the site has</p> <p>14 been changed and developed.</p> <p>15 Q Okay. Do you -- you testified earlier</p> <p>16 regarding the disposal features identified as</p> <p>17 waste disposal pit and sludge pit. Do you</p> <p>18 remember that earlier today?</p> <p>19 A Yes.</p> <p>20 Q And I believe you testified that you</p> <p>21 thought that those were earthen pits. Is that</p> <p>22 your testimony?</p>

<p style="text-align: right;">Page 381</p> <p>1 A Yes. That's my recollection.</p> <p>2 Q Do you see a difference between the</p> <p>3 construction of those two pits and what's been</p> <p>4 identified as an oil trap and separator?</p> <p>5 A Yes. The oil trap and separator,</p> <p>6 straight lines -- they're more clearly a</p> <p>7 concrete-type feature or engineered structure.</p> <p>8 Q And does that engineered structure have</p> <p>9 any bays within it?</p> <p>10 A Yes.</p> <p>11 Q And what is your understanding of how</p> <p>12 those bays work?</p> <p>13 A It separates as the liquid -- it --</p> <p>14 basically the bays somehow separate the oil from</p> <p>15 water.</p> <p>16 Q Do the other two pits, the waste disposal</p> <p>17 pit or sludge pit, do they have similar type</p> <p>18 engineered features?</p> <p>19 A No.</p> <p>20 MR. PETIT: Ali, could we please mark</p> <p>21 that as Exhibit 25?</p> <p>22 (Deposition Exhibit Number 25 was marked</p>	<p style="text-align: right;">Page 383</p> <p>1 Q And then in the very next image, which is</p> <p>2 number -- page 127, and that image is dated</p> <p>3 October 8th, 1953. Do you see that?</p> <p>4 A Yes.</p> <p>5 Q So what we see is just a few months later</p> <p>6 that pit is covered and that tank lid is no longer</p> <p>7 lowered. Do you see that?</p> <p>8 A Yes, I do.</p> <p>9 Q I believe in your testimony you talked</p> <p>10 about it being a rare occasion -- I think you used</p> <p>11 those words. What did you mean by rare occasion?</p> <p>12 A Just that we actually catch them in the</p> <p>13 actual act of digging a pit and then covering the</p> <p>14 same pit where, if we didn't have that previous</p> <p>15 photograph just months before, we wouldn't have</p> <p>16 seen that there was a pit in that area. So when</p> <p>17 it's a short-lived feature, it's hard to catch</p> <p>18 something like that.</p> <p>19 Q When you say it's hard to catch, it's</p> <p>20 hard to catch it with aerial photography.</p> <p>21 A Right. That's exactly what I mean.</p> <p>22 Q When you testified as to a rare occasion,</p>
<p style="text-align: right;">Page 382</p> <p>1 for identification.)</p> <p>2 BY MR. PETIT:</p> <p>3 Q Mr. Grip, do you see Exhibit 25 marked</p> <p>4 before you?</p> <p>5 A Yes.</p> <p>6 Q Okay. You've made no annotations on</p> <p>7 there, but does it accurately reflect the exhibit</p> <p>8 that we just talked about?</p> <p>9 A Yes.</p> <p>10 MR. PETIT: Ali, I'd like to turn to</p> <p>11 Exhibit 1 at page 125. So maybe I'm talking about</p> <p>12 page 126. Sorry.</p> <p>13 BY MR. PETIT:</p> <p>14 Q Okay. Mr. Grip, this is the image from</p> <p>15 your report -- it's an aerial photograph dated</p> <p>16 April 26th, 1953. Do you see that?</p> <p>17 A Yes.</p> <p>18 Q In your testimony earlier, you were</p> <p>19 discussing with opposing counsel the pit</p> <p>20 constructed on the bottom next to the tank that</p> <p>21 has its lid lowered. Do you remember that?</p> <p>22 A Yes.</p>	<p style="text-align: right;">Page 384</p> <p>1 did you mean to suggest that it was a rare</p> <p>2 occasion that facilities like this would dispose</p> <p>3 of tank bottoms rarely in pits adjacent to those</p> <p>4 tanks?</p> <p>5 A No. That's not what I meant.</p> <p>6 Q Okay. I would like to turn your</p> <p>7 attention to the Memphis facility.</p> <p>8 MR. PETIT: Ali, could you please go to</p> <p>9 page 131?</p> <p>10 BY MR. PETIT:</p> <p>11 Q Mr. Grip, this is an aerial photograph</p> <p>12 from your report dated August 10th, 1937. Do you</p> <p>13 see that?</p> <p>14 A Yes.</p> <p>15 Q And based on this photograph, do you</p> <p>16 understand that this facility wasn't in existence</p> <p>17 at the date -- at the time of the photograph?</p> <p>18 A Yes.</p> <p>19 Q Okay.</p> <p>20 MR. PETIT: Ali, can we compare this</p> <p>21 image with page 133, please?</p> <p>22 BY MR. PETIT:</p>

<p style="text-align: right;">Page 385</p> <p>1 Q And we're comparing the earlier image</p> <p>2 with that dated February 7th, 1946. Do you see</p> <p>3 that?</p> <p>4 A Yes.</p> <p>5 Q Mr. Grip, essentially this is similar to</p> <p>6 the plant 2 at Houston, but essentially over this</p> <p>7 time frame we have seen the construction of a new</p> <p>8 facility. Is that your understanding?</p> <p>9 A Yes, it is.</p> <p>10 Q And in the image on the right, do you see</p> <p>11 a disposal feature?</p> <p>12 A Yes. I see an oil pit that was labeled</p> <p>13 as such on the Sanborn.</p> <p>14 Q Is there room -- on the image on the</p> <p>15 right, is there room for disposal activity to take</p> <p>16 place adjacent to those large tanks towards the</p> <p>17 left?</p> <p>18 A Yes. There's some unused space.</p> <p>19 Q And can you identify that with a red</p> <p>20 arrow?</p> <p>21 A I don't know if this is part of the</p> <p>22 facility, but I'm going to mark the tanks to the</p>	<p style="text-align: right;">Page 387</p> <p>1 features on this facility location, correct?</p> <p>2 A Yes.</p> <p>3 MR. PETIT: Ali, can you please compare</p> <p>4 this image with that at 141?</p> <p>5 BY MR. PETIT:</p> <p>6 Q And we're comparing it with an image</p> <p>7 dated July 27th, 1952. Do you see that, Mr. Grip?</p> <p>8 A Yes.</p> <p>9 MR. PETIT: Ali, can you go back and try</p> <p>10 to cover the site area with the -- kind of</p> <p>11 outlined in green maybe. Keep going. There you</p> <p>12 go.</p> <p>13 BY MR. PETIT:</p> <p>14 Q Mr. Grip, can you describe and annotate</p> <p>15 some of the changes that you see between these two</p> <p>16 images?</p> <p>17 A Yes. First I'll point out a berm that I</p> <p>18 see in the upper right corner on the later image.</p> <p>19 There was no impoundment of that liquid area.</p> <p>20 Also point out what is --</p> <p>21 Q What do you -- I'm sorry. What do you</p> <p>22 believe that berm -- the purpose of that berm is?</p>
<p style="text-align: right;">Page 386</p> <p>1 south of the facility as well.</p> <p>2 MR. PETIT: Ali, can we mark that,</p> <p>3 please, as Exhibit 26?</p> <p>4 (Deposition Exhibit Number 26 was marked</p> <p>5 for identification.)</p> <p>6 BY MR. PETIT:</p> <p>7 Q Okay. Mr. Grip, do you see this is</p> <p>8 marked Exhibit 26? Does this Exhibit 26</p> <p>9 accurately reflect the annotations you've made on</p> <p>10 that exhibit -- or on the two images that we just</p> <p>11 discussed?</p> <p>12 A Yes.</p> <p>13 Q If I could turn your attention to the</p> <p>14 Mount Pleasant, Michigan facility.</p> <p>15 MR. PETIT: Ali, if you could please go</p> <p>16 to Exhibit 1 at page 139.</p> <p>17 BY MR. PETIT:</p> <p>18 Q Mr. Grip, is this the aerial image from</p> <p>19 your report dated July 5th, 1938 of the Mount</p> <p>20 Pleasant, Michigan facility?</p> <p>21 A Yes.</p> <p>22 Q And you've identified various disposal</p>	<p style="text-align: right;">Page 388</p> <p>1 A It's to keep flow from going into the</p> <p>2 Chippewa River.</p> <p>3 Q Could it also be used to keep the</p> <p>4 Chippewa River out of that area?</p> <p>5 A It would keep the river out of that area,</p> <p>6 certainly.</p> <p>7 Q But why do you believe the purpose is to</p> <p>8 hold the liquid from entering into the Chippewa</p> <p>9 River?</p> <p>10 A Well, it's become a -- it almost looks</p> <p>11 like it's a pond for use by the facility here. So</p> <p>12 any outfall in that area no longer flows into the</p> <p>13 river; it's captured by that berm and kept on</p> <p>14 site.</p> <p>15 Also have a laydown area that I'm marking</p> <p>16 with an arrow. And I'll use the circle tool on</p> <p>17 the right image to identify new tankage. And I'll</p> <p>18 do a second -- or, really, a third circle right in</p> <p>19 the center. There's been quite a bit of added</p> <p>20 tanks in this area. Not all are new, but there's</p> <p>21 definitely change between the two dates.</p> <p>22 There were -- I identified two pits on</p>

<p style="text-align: right;">Page 389</p> <p>1 the earlier date and there's only one pit, the</p> <p>2 refuse pit, that's still visible on the later</p> <p>3 date, so I'll just circle the general area where</p> <p>4 the former pit was. That's harder to tell with</p> <p>5 ungeoreferenced images, but that's an estimate.</p> <p>6 There's another new tank on the right</p> <p>7 image with an arrow.</p> <p>8 I think that covers it.</p> <p>9 Q Now, as before, could there be other</p> <p>10 process-related changes that you don't see or</p> <p>11 haven't identified in these aerial images?</p> <p>12 A Certainly.</p> <p>13 Q Do you see disposal features in images</p> <p>14 from both dates?</p> <p>15 A Yes.</p> <p>16 Q Do those disposal features change over</p> <p>17 time?</p> <p>18 A Yes.</p> <p>19 MR. PETIT: Ali, can you please mark this</p> <p>20 as Exhibit 27?</p> <p>21 (Deposition Exhibit Number 27 was marked</p> <p>22 for identification.)</p>	<p style="text-align: right;">Page 391</p> <p>1 called red dots as pits. Do you recall that?</p> <p>2 A Yes.</p> <p>3 Q I believe you testified that they're not</p> <p>4 necessarily red dots, but they're actually -- what</p> <p>5 was your testimony? That they're actually mapped</p> <p>6 linear images?</p> <p>7 A Yeah, I mapped the boundaries of those</p> <p>8 pits on my workstation in 3-D and superimposed</p> <p>9 them in my GIS. But with the scale of this large</p> <p>10 facility, it's very difficult to show the outlines</p> <p>11 without the line work running together and</p> <p>12 appearing as just a dot.</p> <p>13 Q And that was kind of the direction I was</p> <p>14 headed. I think you referred to them as small</p> <p>15 pits. And is it your testimony that they're</p> <p>16 actually small in size or they're small relative</p> <p>17 to the scale of this photograph?</p> <p>18 A The latter. They're small relative to</p> <p>19 the scale of this. You can see --</p> <p>20 THE REPORTER: You're breaking up.</p> <p>21 They're small relative to the scale of this...</p> <p>22 THE WITNESS: This site. It's a very</p>
<p style="text-align: right;">Page 390</p> <p>1 MS. KRAL: I apologize. It's not showing</p> <p>2 up in the Exhibit Share. Just a moment. I'm</p> <p>3 refreshing.</p> <p>4 BY MR. PETIT:</p> <p>5 Q All right. Mr. Grip, do you see</p> <p>6 Exhibit 27 before you?</p> <p>7 A I do.</p> <p>8 Q And does that exhibit accurately reflect</p> <p>9 the annotations that you've made between the two</p> <p>10 images we just discussed?</p> <p>11 A Yes.</p> <p>12 Q Okay. I'd like to turn our attention to</p> <p>13 the Port Arthur refinery.</p> <p>14 MR. PETIT: Ali, if you could please</p> <p>15 bring up Exhibit 1 at page 146.</p> <p>16 BY MR. PETIT:</p> <p>17 Q Mr. Grip, this is an aerial image from</p> <p>18 your report dated November 28th, 1938. Do you see</p> <p>19 that?</p> <p>20 A Yes.</p> <p>21 Q Now, earlier in your testimony with</p> <p>22 opposing counsel, you identified some -- what were</p>	<p style="text-align: right;">Page 392</p> <p>1 large facility, so to show the entire facility on</p> <p>2 one exhibit, I have to zoom out and show a large</p> <p>3 area, and the pits just -- are relative to the</p> <p>4 acreage of the facility, they're smaller, but</p> <p>5 they're just the normal size pits that I've seen</p> <p>6 in all the facilities.</p> <p>7 MR. PETIT: Ali, can you please compare</p> <p>8 this image with that at page 148?</p> <p>9 BY MR. PETIT:</p> <p>10 Q So the second image we're looking at is</p> <p>11 dated March 25th, 1947. Do you see that,</p> <p>12 Mr. Grip?</p> <p>13 A Yes.</p> <p>14 Q Okay. Let's wait for it to get cropped</p> <p>15 here, but what I'd like for you to do is describe</p> <p>16 for us and annotate some changes that you see.</p> <p>17 A Okay. I'll start with a bermed area that</p> <p>18 was seen on the earlier date. I see filling</p> <p>19 activities that I'm going to annotate on a later</p> <p>20 date of photography that -- a filling area within</p> <p>21 that berm, the bermed area.</p> <p>22 Q Can you circle that area?</p>

<p style="text-align: right;">Page 393</p> <p>1 A Okay. And I'll circle a pit that's first 2 visible on the later date of photography with a 3 red circle. Then I've got -- let me use the arrow 4 to point out, on the later date of photography, a 5 bermed area with filling and a pond with separator 6 that was not visible on the previous date. 7 And then to the extreme south, an arrow 8 points to a pit first visible on the later date of 9 photography. 10 Q Do you see this -- that pit appears to be 11 a long rectangular pit. Do you see that? 12 A Yes. 13 Q Is that what you see? 14 A Yes. 15 Q And do you see that it's adjacent to some 16 tanks? 17 A Yes. 18 Q And what would your understanding be of 19 the purpose of that pit? 20 A To handle either tank bottoms or spills 21 or leakage from those tanks, from the cleanup 22 activities of those actions. It would serve the</p>	<p style="text-align: right;">Page 395</p> <p>1 give Denise a break. 2 MR. PETIT: That would be great. We can 3 do that. Has it already been two hours? 4 MS. MENEES: It's been over two hours. 5 MR. PETIT: Well, let's go off the record 6 and we can come back on and go ahead and confirm 7 Exhibit 28 when we come back on. So we'll go off 8 the record now. 9 (Whereupon, a short recess was taken.) 10 BY MR. PETIT: 11 Q Mr. Grip, you have Exhibit 28 before you. 12 Does this exhibit accurately reflect the 13 annotations that you made on the two images we 14 just discussed? 15 A Yes. 16 Q Okay. I would like to turn our attention 17 to the Potwin, Kansas refinery site. 18 MR. PETIT: Ali, could you please go to 19 Exhibit 1 at page 155? 20 BY MR. PETIT: 21 Q Mr. Grip, this is an aerial image from -- 22 actually, can you go back for me -- an aerial</p>
<p style="text-align: right;">Page 394</p> <p>1 pits -- the pits would serve those tanks to the 2 south there. 3 Q Now, as you testified, this is a huge 4 facility. Is it safe to say that there are 5 disposal features present in both images? 6 A Yes. 7 Q And do those disposal features change 8 over time? 9 A Yes. I will also circle -- I see a pit 10 that's been removed on the later date. 11 MR. PETIT: Okay. Ali, can you please 12 mark that as Exhibit 28? 13 (Deposition Exhibit Number 28 was marked 14 for identification.) 15 MS. MENEES: Hey, Will, is this all 16 you're doing on Port Arthur? 17 MR. PETIT: Yes, I do believe it is. 18 MS. MENEES: Okay. I was just 19 thinking -- 20 MR. PETIT: Take a break? 21 MS. MENEES: -- since we've been on the 22 record over two hours, it might be a good idea to</p>	<p style="text-align: right;">Page 396</p> <p>1 image from your report dated October 20th, 1938. 2 Do you see that? 3 A Yes. 4 Q And you've identified some pond features 5 on this image? 6 A That's correct. 7 Q And those pond features are potential 8 disposal features, I believe is your testimony; is 9 that right? 10 A Yes. 11 MR. PETIT: Ali, could you please compare 12 this image with that at page 156? 13 BY MR. PETIT: 14 Q And we're comparing the earlier image 15 with another dated September 7th, 1950 from your 16 report. Do you see that, Mr. Grip? 17 A I do. 18 Q Okay. Could you identify the changes 19 that you see and annotate them in these two 20 images? 21 A Yes. But I would ask for the left image 22 to be the same cropping as the right image is.</p>

<p style="text-align: right;">Page 397</p> <p>1 It's missing some area to the south.</p> <p>2 Yeah. That's better. Okay. I'll use</p> <p>3 the arrow -- I'm pointing out on the right image a</p> <p>4 light-toned bermed area. I will also -- let's</p> <p>5 see. I'll just use arrows to point out south of</p> <p>6 the facility there are several new tanks and pits.</p> <p>7 Q And were some of those tanks already</p> <p>8 there?</p> <p>9 A There was only one tank there from</p> <p>10 before, from the earlier date.</p> <p>11 Q Does that tank that was there from the</p> <p>12 earlier date, does that appear to be in service at</p> <p>13 the later date?</p> <p>14 A I don't see a top on that tank in the</p> <p>15 area of the -- from the previous date. So it</p> <p>16 doesn't appear to be in service.</p> <p>17 Q Given the proximity of the two pits that</p> <p>18 you've identified in the later date to the south</p> <p>19 to the new tanks, what do you believe the purpose</p> <p>20 of those pits to be?</p> <p>21 A To handle spills or leaks from those</p> <p>22 tanks down to the south or from the tank bottoms</p>	<p style="text-align: right;">Page 399</p> <p>1 Does that exhibit accurately reflect the</p> <p>2 annotations you made on the two images we just</p> <p>3 discussed?</p> <p>4 A Yes.</p> <p>5 Q Okay. I would like to turn your</p> <p>6 attention to the Santa Fe Springs refinery</p> <p>7 location.</p> <p>8 MR. PETIT: If you could, please, Ali, go</p> <p>9 to Exhibit 1 at page 165. Actually, if you don't</p> <p>10 mind, if you could start at 162.</p> <p>11 BY MR. PETIT:</p> <p>12 Q Mr. Grip, this is an aerial image from</p> <p>13 your report dated August 1927. Do you see that?</p> <p>14 A Yes.</p> <p>15 Q And you see that at this point in time,</p> <p>16 the refinery doesn't exist at this location. Is</p> <p>17 that your understanding?</p> <p>18 A Yes.</p> <p>19 Q Okay.</p> <p>20 MR. PETIT: Ali, can you go down one</p> <p>21 page, please, to 164?</p> <p>22 BY MR. PETIT:</p>
<p style="text-align: right;">Page 398</p> <p>1 in those tanks.</p> <p>2 Okay. Slightly to the north, there are</p> <p>3 some more tanks visible that were not there</p> <p>4 before, in the earlier date. We'll mark those</p> <p>5 with arrows.</p> <p>6 Then I've got a pond filled north of</p> <p>7 Brush Creek that I'm pointing out on the later</p> <p>8 date. I believe this pit is new as well.</p> <p>9 Just off of Powell Street, there's a new</p> <p>10 pit visible on the later date. I think that</p> <p>11 covers it.</p> <p>12 Q Okay. And as before, could there be</p> <p>13 other process-related changes that you can't or</p> <p>14 haven't identified in the aerial imagery?</p> <p>15 A Yes. I wouldn't be able to tell what's</p> <p>16 going on in the buildings.</p> <p>17 MR. PETIT: Ali, can we please mark that</p> <p>18 as Exhibit 29?</p> <p>19 (Deposition Exhibit Number 29 was marked</p> <p>20 for identification.)</p> <p>21 BY MR. PETIT:</p> <p>22 Q Mr. Grip, you see before you Exhibit 29.</p>	<p style="text-align: right;">Page 400</p> <p>1 Q Now, it appears that in November 1932 --</p> <p>2 at some point between 1927 and 1932, the facility</p> <p>3 has been constructed. Do you see that?</p> <p>4 A Yes.</p> <p>5 Q Okay. If we could go to page 165. And</p> <p>6 this is an aerial image from your report dated</p> <p>7 April 16th, 1941. Do you see that?</p> <p>8 A Yes.</p> <p>9 Q And you've identified a number of</p> <p>10 disposal features. Do you see that?</p> <p>11 A Yes.</p> <p>12 Q There's a number of them to the west and</p> <p>13 a few to the east of the actual process area; is</p> <p>14 that right?</p> <p>15 A That's right.</p> <p>16 MR. PETIT: Can you compare that, Ali, to</p> <p>17 the next page on page 166?</p> <p>18 BY MR. PETIT:</p> <p>19 Q Do you see we're comparing the</p> <p>20 April 16th, 1941 image with an image of January 1,</p> <p>21 1945? Do you see that?</p> <p>22 A Yes.</p>

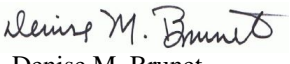
<p style="text-align: right;">Page 401</p> <p>1 MR. PETIT: Ali, can you try to crop</p> <p>2 those relatively consistently?</p> <p>3 BY MR. PETIT:</p> <p>4 Q Mr. Grip, can you describe and annotate</p> <p>5 some of the changes that you see between the two</p> <p>6 images?</p> <p>7 A Sure. On the later image, I'm going to</p> <p>8 point out with my red arrow --</p> <p>9 THE REPORTER: I'm going to point out</p> <p>10 with my red arrow...</p> <p>11 THE WITNESS: A new pit that is in use.</p> <p>12 I'll circle with a red arrow on the later date</p> <p>13 some change that I see north of the facility, new</p> <p>14 development.</p> <p>15 I think that covers the changes between</p> <p>16 those two dates.</p> <p>17 BY MR. PETIT:</p> <p>18 Q And as before, could there be</p> <p>19 process-related changes that you either haven't</p> <p>20 identified or cannot identify on the aerial</p> <p>21 imagery?</p> <p>22 A Yes.</p>	<p style="text-align: right;">Page 403</p> <p>1 an additional pit to the east. Do you see that?</p> <p>2 A Yes.</p> <p>3 Q Do you know when between January 1, 1945</p> <p>4 and June 18, 1947 that pit was constructed?</p> <p>5 A Not the precise date, but I can just tell</p> <p>6 you it's well before this particular date in</p> <p>7 6/18/47.</p> <p>8 Q And why is that?</p> <p>9 A Well, it's clearly in use. So they had</p> <p>10 time to develop it and put it into use before this</p> <p>11 date of photography.</p> <p>12 Q Okay.</p> <p>13 MR. PETIT: Ali, can we go back to</p> <p>14 Exhibit 1 and then go to the next image, which is</p> <p>15 at -- I think it's page 168?</p> <p>16 BY MR. PETIT:</p> <p>17 Q Mr. Grip, we're going from June 1947 to</p> <p>18 now January 1951. Do you notice quite a bit of</p> <p>19 change at this facility between those dates?</p> <p>20 A Yes. I can obviously see the pits have</p> <p>21 been closed. There's changes to the pits. And it</p> <p>22 looks to be changes to the process area.</p>
<p style="text-align: right;">Page 402</p> <p>1 MR. PETIT: Okay. Ali, can we please</p> <p>2 mark this as Exhibit 30?</p> <p>3 (Deposition Exhibit Number 30 was marked</p> <p>4 for identification.)</p> <p>5 BY MR. PETIT:</p> <p>6 Q Mr. Grip, you have Exhibit 30 before you.</p> <p>7 Does that exhibit accurately reflect the</p> <p>8 annotations you made between the two images we</p> <p>9 just discussed?</p> <p>10 A Yes.</p> <p>11 MR. PETIT: Okay. Ali, could you please</p> <p>12 bring up Exhibit 16?</p> <p>13 BY MR. PETIT:</p> <p>14 Q Mr. Grip, Exhibit 16 is the next image in</p> <p>15 your report for this facility and it's dated</p> <p>16 June 18th, 1947. And this is an image that you</p> <p>17 had annotated before with opposing counsel. Do</p> <p>18 you recall that?</p> <p>19 A Yes.</p> <p>20 Q Okay. And the image before this one is</p> <p>21 dated January 1, 1945. Now, this one is</p> <p>22 June 1947. And what you've annotated on here is</p>	<p style="text-align: right;">Page 404</p> <p>1 Q And what kind of changes do you see in</p> <p>2 the process area?</p> <p>3 A I'd have to do a side-by-side. It just</p> <p>4 looks like some building have changed.</p> <p>5 Q Okay. Let's go -- it may be easier to</p> <p>6 see in the next image.</p> <p>7 MR. PETIT: Can we go to the next image,</p> <p>8 Ali, 169?</p> <p>9 BY MR. PETIT:</p> <p>10 Q This is from October 1953. Do you see a</p> <p>11 bunch of facilities, a process area that's been</p> <p>12 removed?</p> <p>13 A Yes, I believe in the center of the site</p> <p>14 the facility has been deconstructed in that area.</p> <p>15 And this shows, on the 10/19/53 image, areas where</p> <p>16 the former pits were located that are outlined</p> <p>17 with white polygons.</p> <p>18 Q And I believe you testified regarding the</p> <p>19 light-toned area to the south on this image. Do</p> <p>20 you recall that?</p> <p>21 A Yes.</p> <p>22 Q And what do you believe that area to be</p>

<p style="text-align: right;">Page 405</p> <p>1 used for?</p> <p>2 A It looks like almost a parking lot or</p> <p>3 staging area for when they were removing those</p> <p>4 structures. It doesn't look like a disposal-type</p> <p>5 feature to me.</p> <p>6 Q In the image before, do you believe that</p> <p>7 the deconstruction of this facility was happening</p> <p>8 as early as January 1951?</p> <p>9 A Can you show it to me again? I</p> <p>10 believe -- can we go back?</p> <p>11 Yes, I believe they've removed features</p> <p>12 from the center of that facility.</p> <p>13 MR. PETIT: Ali, can we go ahead and</p> <p>14 scroll forward? We're on 168. If we can go to</p> <p>15 170.</p> <p>16 BY MR. PETIT:</p> <p>17 Q And then does it appear to you, Mr. Grip,</p> <p>18 that by June 1956, that this facility has been</p> <p>19 almost entirely deconstructed?</p> <p>20 A Yes. There's been a lot more removal of</p> <p>21 structures on the site. And one of the pits has</p> <p>22 been closed.</p>	<p style="text-align: right;">Page 407</p> <p>1 Q They were still -- sorry. Go ahead.</p> <p>2 A That's also a berm construction and</p> <p>3 impoundment of liquid along that berm.</p> <p>4 Q But it's your testimony that they were</p> <p>5 disposing of materials on site in both images?</p> <p>6 A Yes.</p> <p>7 Q Is the berm a disposal feature?</p> <p>8 A No.</p> <p>9 Q Okay. So you just testified that a</p> <p>10 disposal feature that changed was the berm that</p> <p>11 was visible; is that right?</p> <p>12 A Well, it impounded liquid that would flow</p> <p>13 off the site and into the river. So in that way,</p> <p>14 I guess you could call that a disposal feature as</p> <p>15 it pertains to that particular site.</p> <p>16 Q Okay. Let's go to the next exhibit. You</p> <p>17 also testified in this image that there are</p> <p>18 disposal features in both of these images but that</p> <p>19 they changed. How did they change?</p> <p>20 A Well, on comparing the two dates, some of</p> <p>21 them were closed. Then new ones were added on the</p> <p>22 later date that were not visible on the first</p>
<p style="text-align: right;">Page 406</p> <p>1 Q Okay.</p> <p>2 MR. PETIT: I'll go ahead and pass the</p> <p>3 witness.</p> <p>4 MS. MENEES: All right. I'm good to just</p> <p>5 keep going. I don't think we need a break.</p> <p>6 How are you doing, Denise?</p> <p>7 THE REPORTER: I'm fine.</p> <p>8 FURTHER EXAMINATION BY COUNSEL FOR DEFENDANT</p> <p>9 BY MS. MENEES:</p> <p>10 Q Okay. I'd like to go to Exhibit 19. So</p> <p>11 Mr. Grip, I believe you just testified that there</p> <p>12 are disposal features in both of these images, but</p> <p>13 that they changed between the two images; is that</p> <p>14 correct?</p> <p>15 A Yes.</p> <p>16 Q How did they change?</p> <p>17 A A rectangular pit was closed adjacent to</p> <p>18 several tanks north of a rail spur. It was closed</p> <p>19 on the later date. And there were landfilling</p> <p>20 activities seen on the later date of photography</p> <p>21 which weren't seen on the earlier date of</p> <p>22 photography. There's --</p>	<p style="text-align: right;">Page 408</p> <p>1 date. And also, the boundaries of some of the</p> <p>2 newer pits were obviously modified.</p> <p>3 Q But the practices for disposing of waste</p> <p>4 were on site, is that right, in both images?</p> <p>5 A Yes. They're on site.</p> <p>6 Q And then you also testified that the</p> <p>7 processes may have changed, but you couldn't see</p> <p>8 them. What sort of processes are you talking</p> <p>9 about?</p> <p>10 A Just the change of production of that</p> <p>11 refinery. I don't know if it's different fuel or</p> <p>12 oil or what have you.</p> <p>13 Q But you don't know specifically what</p> <p>14 those processes are, how they would have changed?</p> <p>15 A No. What I'm saying is if there's a</p> <p>16 change in chemical process or refining process, I</p> <p>17 wouldn't necessarily see it just based on the</p> <p>18 aerials alone.</p> <p>19 Q So you can't see any process changes,</p> <p>20 correct?</p> <p>21 A I can't see the change and I can't see</p> <p>22 that it's not changed.</p>

<p style="text-align: right;">Page 409</p> <p>1 Q You're testifying as to what you can 2 observe in the images, right? 3 A Yes. 4 Q And you're not testifying as to the 5 processes, right? 6 A No, but I'm explaining that if they 7 changed the process, I wouldn't necessarily notice 8 that the process has been changed unless there's a 9 very distinctive feature that appears, like you 10 pointed out, you know, a distinctive construct of 11 a unit or something like that. 12 Q And pits remained open between these two 13 image, right? 14 A There were open pits on both dates of 15 photography. Now, there are newly open pits on 16 the later date that weren't there on the previous 17 date. There are also -- 18 Q Pits that remained the same, right? 19 A There are some that did remain generally 20 the same. 21 Q So the disposal practices for those pits 22 would have remained consistent, right?</p>	<p style="text-align: right;">Page 411</p> <p>1 both photos? 2 A Yes, there are still pits in use in both 3 photos. 4 Q There are still impoundments in both 5 photos? 6 A Yes. Well -- yes. 7 Q And there's still an area labeled 8 disposal area in both photos, right? 9 A Yes. 10 Q So it seems like waste disposal features 11 have also remained the same in both images, right? 12 A Some disposal features have remained the 13 same. Some have changed. 14 Q Okay. Let's go to the next image. So 15 you also testified that -- 16 MR. PETIT: Sydney, for the record, we're 17 talking about Exhibit 22? 18 MS. MENEES: Yes, thank you. 19 BY MS. MENEES: 20 Q This is Exhibit 22. And you testified 21 that there are disposal features in both of these 22 images and that the disposal features changed,</p>
<p style="text-align: right;">Page 410</p> <p>1 A In that it's a disposal feature, 2 certainly. I don't know if what is going into the 3 pits has changed between the two dates, but the 4 basic boundaries of the pit is unchanged on a few 5 of these. But there are new ones that are added 6 and some that are closed. 7 Q Okay. Let's go to the next exhibit. So 8 you also testified that there are disposal 9 features in both images, but that they changed. 10 But there are pits in both of these images, right? 11 A There are pits in both of these images. 12 Some -- 13 Q And those are -- go ahead. 14 A They do change in area or are opened or 15 closed between the dates, or they're divided into 16 different features or different bays, for example, 17 in the center, in the spray pond. 18 Q And just for the record, we're talking 19 about Exhibit 21 right now. So the pits remain in 20 use in both of these images, no matter whether 21 they move or are closed or whether they get 22 bigger, right? There are still pits in use in</p>	<p style="text-align: right;">Page 412</p> <p>1 right? 2 A I'm not sure if I answered that question 3 on this image. I know there was a pit visible on 4 the first date. 5 Q Okay. So you testified with regard to 6 this exhibit that there could have been pits in 7 the bermed areas in the right-hand photo; is that 8 right? 9 A I don't remember how the question was, 10 but that is a potential area. If there was 11 activities like we saw on the other site in this 12 case where they dug a pit and deposited either 13 spill or tank bottoms into that area, that would 14 be where they would be on this site. I don't 15 remember what the exact question was, if you want 16 to read that back to me. 17 Q I don't think that's necessary. Did 18 you -- did you add that to your expert report 19 anywhere? 20 A No. I was just answering the question. 21 Q So why didn't you have it in your expert 22 report?</p>

<p style="text-align: right;">Page 413</p> <p>1 A I didn't see the activity of digging and</p> <p>2 disposal within that boundary on the photograph.</p> <p>3 Q So you never actually saw a pit in</p> <p>4 these -- in this photograph, right?</p> <p>5 A Well, I see it in the left photograph,</p> <p>6 and I see that it was covered in the right</p> <p>7 photograph. That same pit that was visible on the</p> <p>8 earlier date is now covered by development in the</p> <p>9 right photograph. But I don't --</p> <p>10 Q To clarify, I meant that you didn't see</p> <p>11 any pits in the bermed areas of the tank in the</p> <p>12 right photograph, right?</p> <p>13 A Correct.</p> <p>14 Q You were just testifying that they could</p> <p>15 have been there?</p> <p>16 A If that same practice happened, that</p> <p>17 would be where those pits would be found.</p> <p>18 Q Do you consider yourself an expert in</p> <p>19 refinery practices?</p> <p>20 A I've looked at several refineries and</p> <p>21 understand what practices happen in different</p> <p>22 refineries. And even in this same case, I see</p>	<p style="text-align: right;">Page 415</p> <p>1 longer in use. And then new pits are visible in</p> <p>2 the later date across the rail spur to the east.</p> <p>3 Q But there are pits in both images, right?</p> <p>4 A Yes.</p> <p>5 Q So the disposal features just moved?</p> <p>6 A Well, new disposal features were open.</p> <p>7 Q So you would say some of the disposal</p> <p>8 features remained the same between images and some</p> <p>9 of them were new?</p> <p>10 A I'd say one of the disposal features</p> <p>11 remained the same, one changed, and three or four</p> <p>12 are new.</p> <p>13 Q And the tanks that you marked aren't</p> <p>14 disposal features, are they?</p> <p>15 A No.</p> <p>16 Q In any of the images when you marked new</p> <p>17 tanks, those aren't disposal features, right?</p> <p>18 A Well, just by themselves, I wouldn't</p> <p>19 consider them a disposal feature. There are</p> <p>20 circumstances where they could be considered that,</p> <p>21 but not in this case, to my knowledge.</p> <p>22 Q Okay. Let's go to the next exhibit.</p>
<p style="text-align: right;">Page 414</p> <p>1 that type of activity, so I know it's -- it's a</p> <p>2 common practice.</p> <p>3 Q Are you testifying as a refinery</p> <p>4 processes expert?</p> <p>5 A No.</p> <p>6 Q So this is just something that you're</p> <p>7 opining on as a layperson?</p> <p>8 A No. I've observed this type of activity</p> <p>9 even on this facility -- or not this facility, but</p> <p>10 in this litigation, this type of activity. But I</p> <p>11 don't --</p> <p>12 Q In this -- go ahead.</p> <p>13 A But I don't actually see the pit on this</p> <p>14 photograph.</p> <p>15 Q Okay. Let's go to the next exhibit.</p> <p>16 This is Exhibit 23. So for this exhibit, you</p> <p>17 testified that disposal features are in both</p> <p>18 photos, but the disposal features changed; is that</p> <p>19 right?</p> <p>20 A Yes.</p> <p>21 Q How did they change?</p> <p>22 A Well, one of the pits has been filled, no</p>	<p style="text-align: right;">Page 416</p> <p>1 This is Exhibit 24. For this exhibit, you also</p> <p>2 testified that there are disposal features in both</p> <p>3 images, but disposal features changed; is that</p> <p>4 right?</p> <p>5 A Yes.</p> <p>6 Q And how did they change?</p> <p>7 A One was filled in. And there was --</p> <p>8 well, the change is just the filling in the slush</p> <p>9 pit.</p> <p>10 Q But there are other pits that remained</p> <p>11 open between the two images, right?</p> <p>12 A Yes.</p> <p>13 Q So those disposal features remained</p> <p>14 consistent?</p> <p>15 A Yes. I'd say, in general terms, from</p> <p>16 what I can see.</p> <p>17 Q And just going back to the temporary tank</p> <p>18 bottom scraping pits that you referenced earlier,</p> <p>19 a lot of these pits we've seen remain open over</p> <p>20 the course of many years. So those aren't</p> <p>21 temporary pits, right?</p> <p>22 A Right.</p>

<p style="text-align: right;">Page 417</p> <p>1 Q Okay. Let's go to Exhibit 25. In the</p> <p>2 right-hand -- or the left-hand image, just to</p> <p>3 clarify, this refinery hasn't been built yet,</p> <p>4 right?</p> <p>5 A Right.</p> <p>6 Q Okay. Let's move to the next exhibit.</p> <p>7 You also testified in this image that the tanks</p> <p>8 with the arrows have berms around them so there</p> <p>9 could be pits built in there; is that right?</p> <p>10 A I believe my testimony was there was</p> <p>11 space in that area to perform that function that</p> <p>12 we saw on the other facility in this litigation.</p> <p>13 Q But you didn't actually see this in any</p> <p>14 of the images for this refinery, right?</p> <p>15 A No.</p> <p>16 Q Okay. Let's go to the next image. This</p> <p>17 is Exhibit 27. So for this image -- these images,</p> <p>18 you testified that there are disposal features in</p> <p>19 both images, but that the disposal features</p> <p>20 changed; is that correct?</p> <p>21 A Yes.</p> <p>22 Q How did they change?</p>	<p style="text-align: right;">Page 419</p> <p>1 Q And -- go ahead.</p> <p>2 A Sorry, that's it. Ask the question.</p> <p>3 Q And there are pits that remain visible in</p> <p>4 both photos, right, that you would consider</p> <p>5 disposal features?</p> <p>6 A Yes. There are pits on both photos.</p> <p>7 Q And you consider pits disposal features?</p> <p>8 A Yes.</p> <p>9 Q And some of these pits are the same pits,</p> <p>10 right?</p> <p>11 A Some of them are the same pits, some of</p> <p>12 them are new pits, some of them are changes.</p> <p>13 Q Okay. Let's go to Exhibit 29. So for</p> <p>14 this photo, you testified that the space next to</p> <p>15 the tanks in the right-hand photo is big enough</p> <p>16 that there could be a pit for tank scraping; is</p> <p>17 that correct?</p> <p>18 A I don't know that I said that on this</p> <p>19 date. There are big areas, but there are pits</p> <p>20 that serve those same tanks that are visible.</p> <p>21 You'd have to go back over my testimony to</p> <p>22 confirm. I don't remember that.</p>
<p style="text-align: right;">Page 418</p> <p>1 A They were either closed or -- well,</p> <p>2 basically closed, either covered over and a new</p> <p>3 one was added.</p> <p>4 Q Are any of them consistent between the</p> <p>5 two images?</p> <p>6 A I don't believe in that case -- I still</p> <p>7 have an area -- I don't believe that they were the</p> <p>8 same across these two dates.</p> <p>9 Q But there are pits in both images. They</p> <p>10 just moved places; is that right?</p> <p>11 A They moved places and there was new ones</p> <p>12 that were opened.</p> <p>13 Q Let's go to Exhibit 28. For this image,</p> <p>14 you also testified that there are disposal</p> <p>15 features in both photos, but that the disposal</p> <p>16 features changed; is that right?</p> <p>17 A Yes.</p> <p>18 Q How did they change?</p> <p>19 A We've got an area that was identified as</p> <p>20 a bermed area with dark liquid in the earlier</p> <p>21 date, and we see filling within that bermed area</p> <p>22 on the later date. And --</p>	<p style="text-align: right;">Page 420</p> <p>1 Q Okay. So would you say that the pits in</p> <p>2 this image are not -- would not be next to the</p> <p>3 tanks if there -- sorry. Strike that.</p> <p>4 If there were tank -- if there were tank</p> <p>5 scraping that occurred, it wouldn't happen next to</p> <p>6 the tanks in this image?</p> <p>7 A I can't rule that out. I can just tell</p> <p>8 you there are already pits out there that service</p> <p>9 that area. So I'd expect it to be used -- those</p> <p>10 pits to be used for spills or leaks or tank</p> <p>11 bottoms.</p> <p>12 Q And just to be clear, you didn't see any</p> <p>13 pits open next to the tanks like -- for tank</p> <p>14 scraping purposes like the one in the other image</p> <p>15 that you're referencing, right?</p> <p>16 A No, not on this photograph.</p> <p>17 Q And not for this refinery, right?</p> <p>18 A Right.</p> <p>19 Q Okay. Let's go to the last image,</p> <p>20 Exhibit 30. So for this image you testified that</p> <p>21 there are disposal features in both photos, but</p> <p>22 that the disposal features changed; is that</p>

<p style="text-align: right;">Page 421</p> <p>1 correct?</p> <p>2 A Yes.</p> <p>3 Q And how did they change?</p> <p>4 A There's a new one added, and on one of</p> <p>5 the pits it appears to be dry and out of use on</p> <p>6 the later date. It's just a bermed area with</p> <p>7 nothing in it.</p> <p>8 Q So the pits -- there are pits in both</p> <p>9 photos, right?</p> <p>10 A Yes.</p> <p>11 Q And the pits are what you consider to be</p> <p>12 disposal features, right?</p> <p>13 A Yes.</p> <p>14 Q And some of the pits remained consistent</p> <p>15 between the two photos, right?</p> <p>16 A Yes.</p> <p>17 MS. MENEES: Okay. I'd like to go off</p> <p>18 the record. I think I'm done, but I just want to</p> <p>19 confer with co-counsel.</p> <p>20 MR. PETIT: Okay.</p> <p>21 (Whereupon, a short recess was taken.)</p> <p>22 MS. MENEES: I don't have any more</p>	<p style="text-align: right;">Page 423</p> <p>1 CERTIFICATE OF NOTARY PUBLIC</p> <p>2 I, Denise M. Brunet, the officer before</p> <p>3 whom the foregoing deposition was taken, do hereby</p> <p>4 certify that the witness whose testimony appears</p> <p>5 in the foregoing deposition was sworn by me; that</p> <p>6 the testimony of said witness was taken by me</p> <p>7 stenographically and thereafter reduced to print</p> <p>8 by means of computer-assisted transcription by me</p> <p>9 to the best of my ability; that I am neither</p> <p>10 counsel for, related to, nor employed by any of</p> <p>11 the parties to this litigation and have no</p> <p>12 interest, financial or otherwise, in the outcome</p> <p>13 of this matter.</p> <p>14</p> <p>15</p> <p style="text-align: center;"></p> <p>16 Denise M. Brunet</p> <p>17 Notary Public in and for</p> <p>18 The District of Columbia</p> <p>19</p> <p>20 My commission expires:</p> <p>21 December 14, 2022</p> <p>22</p>
<p style="text-align: right;">Page 422</p> <p>1 questions for Mr. Grip at this time.</p> <p>2 MR. PETIT: I don't have any more</p> <p>3 questions either.</p> <p>4 (Whereupon, at 4:40 p.m., the remote</p> <p>5 deposition of RANDALL GRIP was concluded.)</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p>	<p style="text-align: right;">Page 424</p> <p>1 ACKNOWLEDGEMENT OF DEPONENT</p> <p>2 I, RANDALL GRIP, do hereby acknowledge I</p> <p>3 have read and examined the foregoing pages of</p> <p>4 testimony, and the same is a true, correct and</p> <p>5 complete transcription of the testimony given by</p> <p>6 me, and any changes and/or corrections, if any,</p> <p>7 appear in the attached errata sheet signed by me.</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21 _____</p> <p>22 Date RANDALL GRIP</p>

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1 Capital Reporting Company
2 1250 Eye Street, Northwest
3 Suite 350
4 Washington, D.C. 20005
5 (202) 857-DEPO
6 E R R A T A S H E E T
7 Case Name: MRP Properties Company, et al. vs.
8 United States
9 Witness Name: Randall Grip
10 Deposition Date: May 20, 2020
11 Job No. 4115535
12
13 Page No. Line No. Change/Reason for Change
14
15
16
17
18
19
20
21 _____
22 Signature Date

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1 CAPITAL REPORTING COMPANY
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2 Washington, D.C. 20005
Phone: 202-857-DEPO Fax: 973-629-1287
3 erratas-cs@veritext.com
4 June 2, 2020
5 To: William C. Petit, Esquire
6 Case Name: MRP Properties Company, LLC, Et Al., v. United States Of
America
7
Veritext Reference Number: 4115535
8
Witness: Randall Grip Deposition Date: 5/20/2020
9
10 Dear Sir/Madam:
11 Enclosed please find a deposition transcript. Please have the witness
review the transcript and note any changes or corrections on the
12 included errata sheet, indicating the page, line number, change, and
the reason for the change. Have the witness' signature at the bottom
13 of the sheet notarized except in California where they are signing
under penalty of perjury and email the errata sheet back to us at the
14 address shown above.
15
If the jurat is not received within thirty days of your receipt of
16 this letter, the reading and signing will be deemed waived.
17
Sincerely,
18
19 Production Department
20
21 Encl.
22 Cc: Sydney Menees, Esquire

[& - 1953]

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[testified - type]

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[type - work]

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted fashion to authenticated parties who are permitted to access the material. Our data is hosted in a Tier 4 SSAE 16 certified facility.

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1250 Eye Street, N.W. - Suite 350, Washington, D.C. 20005

Phone: 202-857-DEPO Fax: 973-629-1287

Email: Erratas-CS@veritext.com

June 15, 2020

To: Sydney Menees

In Re: Mrp Properties Company, Llc, Et Al. v United States Of America

Veritext Reference Number: 4115535

Witness: Randall Grip

Deposition Date: May 20, 2020

Dear Sir/Madam:

Enclosed you will find the executed errata sheet in regards to the matter referenced above.

This is being sent to your office as you handled the direct examination of the witness.

Veritext has saved a copy of the errata and has forwarded copies to all counsel who received a transcript in this matter. Please keep this for your records.

If you have any questions, please call the above number and ask to speak with the production department.

Sincerely,
Production Department

Encl.

CC: William C. Petit

Randall Grip

May 20, 2020

Page 425

Capital Reporting Company
1250 Eye Street, Northwest
Suite 350
Washington, D.C. 20005
(202) 857-DEPO

E R R A T A S H E E T

Case Name: MRP Properties Company, et al. vs.
United States

Witness Name: Randall Grip

Deposition Date: May 20, 2020

Job No. 4115535

Page No.	Line No.	Change/Reason for Change
----------	----------	--------------------------

See errata sheet attached

Signature

Date

Pg 1 of 2

Errata Sheet

May 20, 2020

P14 L14 in instead of and
P16 L17 levees
P22 L6 Ericsson
P26 L5 ground instead of groined
P26 L10 concerned with features in the imagery
P26 L20 certainly
P39 L7 date instead of data
P46 L5 in instead of and
P46 L7 say instead of shy
P54 L6 geo referenced
P54 L20 where instead of whereas
P54 L21 it its flat we instead of it its a bar or
P64 L20 you're going to see
P75 L18 remove of
P145 L21 levee instead of levy
P200 L14 another instead of other
P204 L8 dredged instead of dragged

6-15-20

RF



Pg 2 of 2

ACKNOWLEDGEMENT OF DEPONENT

I, RANDALL GRIP, do hereby acknowledge I have read and examined the foregoing pages of testimony, and the same is a true, correct and complete transcription of the testimony given by me, and any changes and/or corrections, if any, appear in the attached errata sheet signed by me.

6-15-20

Date

[Signature]

RANDALL GRIP



Errata Sheet for Randall Grip Deposition Transcript
5/19/2020 and 5/20/2020

Page/Line	Change	Reason for Change
14:14	Change “and” to “in”	Wrong word
16:13	Change “levies” to “levees”	Wrong word
22:6	Change “Erisson” to “Ericsson”	Wrong word
26:5	Change “groined” to “ground”	Wrong word
26:10	Change “concerned that imagery” to “concerned with features in the imagery”	Clarification
26:20	Change “certain” to “certainly”	Wrong word
39:7	Change “data” to “date”	Wrong word
46:5	Change “and” to “in”	Wrong word
46:7	Change “shy” to “say”	Wrong word
54:6	Change “imagery, georeference,” to “imagery georeferenced”	Wrong word /clarification
54:20	Change “whereas” to “where”	Wrong word
54:21	Change “a bar or” to “flat we”	Wrong words
64:20	Omit “not”	Omit word/clarification
75:18	Omit “of”	Omit word
145:21	Change “levy” to “levee”	Wrong word
200:14	Change “other form” to “another form”	Wrong word
204:8	Change “dragged” to “dredged”	Wrong word

Joseph Bitanga

From: Randy Grip <rgrip@aero-data.com>
Sent: Monday, June 15, 2020 1:58 PM
To: Smith, Charity L.
Subject: RE: Valero v. US Deposition Transcript

CAUTION: This message originated outside of Kelley Drye and was sent by: rgrip@aero-data.com

Charity,

Whoops. It's Page 16 line 13 levees instead of levies. I copied my notes to a second page and read that one wrong.

I did read the second day of my deposition and really didn't find errors like I saw on the first day.

Randy

From: Smith, Charity L. <CSmith@KelleyDrye.com>
Sent: Monday, June 15, 2020 12:48 PM
To: Randy Grip <rgrip@aero-data.com>
Subject: RE: Valero v. US Deposition Transcript

Mr. Grip,

I do not understand the needed change to page 16 line 17. Also, it appears the changes you made were to your 5/19/2020 deposition. Please correct the date and also review the attached transcript for May 20, 2020. If you need anything, please reach out to me. Thank you!

CHARITY SMITH

Paralegal
Kelley Drye & Warren LLP
Tel: (713) 355-5037
Cell: (281) 433-7977
csmith@kelleydrye.com

From: Randy Grip <rgrip@aero-data.com>
Sent: Monday, June 15, 2020 12:16 PM
To: Smith, Charity L. <CSmith@KelleyDrye.com>
Subject: RE: Valero v. US Deposition Transcript

CAUTION: This message originated outside of Kelley Drye and was sent by: rgrip@aero-data.com

Charity,

Attached is my errata sheet.

Regards,

Randall Grip
Aero-Data Corporation
8280 YMCA Plaza Drive Building 11
Baton Rouge, La 70810
Office 225.767.5725
Cell 225.324.3890

From: Smith, Charity L. <CSmith@KelleyDrye.com>
Sent: Tuesday, June 9, 2020 2:22 PM
To: 'rgrip@aero-data.com' <rgrip@aero-data.com>
Cc: Petit, William C. <wpetit@kelleydrye.com>
Subject: Valero v. US Deposition Transcript

Good afternoon, Mr. Grip. Please see the attached deposition transcripts and errata sheet. Please review your transcript and note any needed changes on the errata sheet or by email to me by Monday, June 15, 2020. If you have any questions, please feel free to reach out to me. Thank you!

CHARITY SMITH

Paralegal
Kelley Drye & Warren LLP
515 Post Oak Boulevard, Suite 900
Houston, TX 77027
Tel: (713) 355-5037
Cell: (281) 433-7977

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csmith@kelleydrye.com

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